#### owner manual

## YUMI

# meet your best assistant ever for much more than just payments





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author Niels Grundtvig Nielsen

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## **Table of Contents**

Chapter 1. About this manual	1		
USB terminology			
Chapter 2. Introduction			
Variants	3		
Chapter 3. About the YUMI	5		
Full colour touchscreen	6		
Readers	7		
Contactless reader	7		
Chip-card reader	8		
Magstripe-card reader	9		
Wireless communications	9		
WiFi	9		
Bluetooth	9		
4G	. 10		
Cameras	. 10		
Power button	. 11		
Card slots	. 11		
Audio and accessibility	. 12		
Kensington slot	. 12		
Chapter 4. YUMI Countertop	. 14		
Wired communications	. 14		
Ethernet	. 14		
USB device	. 15		
USB host	. 15		
RS-232 serial	. 15		
Cable anchor-points and pole/stand fixation sockets	. 15		
Power supply – Countertop	. 16		
Accessories – Countertop	. 17		
PIN privacy shield	. 17		
Fixation plate and stand	. 17		
Poles	. 18		
Chapter 5. YUMI Portable	. 20		
Battery pack	. 20		
Caring for the battery	. 20		
Safety precautions for batteries	. 21		
Power supply – Portable	. 21		
Accessories – Portable	. 22		
Chapter 6. Unpacking your YUMI Countertop and choosing a location	. 23		
Unpacking and checking your YUMI Countertop	. 23		
Unpacking and checking the optional stand	. 24		

Selecting a location for your YUMI Countertop	24
Physical surroundings	25
Chapter 7. Unpacking your YUMI Portable and choosing a location	26
Unpacking and checking your YUMI Portable	26
Selecting a location for your YUMI Portable	. 27
Physical surroundings	27
Chapter 8. Preparing the YUMI Countertop for operation	. 29
Installing cards – optional	29
Attaching the PIN privacy shield – optional	. 31
Free-standing or fixed?	. 31
Leaving the YUMI free-standing	32
Fixing the YUMI to a stand	. 33
Fixing the YUMI to a revolving pole	36
Fixing the YUMI to a flip-over pole	. 38
Fixing the YUMI to a wall	40
Connecting cables	. 41
Powering up the YUMI Countertop	. 42
Chapter 9. Preparing the YUMI Portable for operation	. 43
Installing cards – optional	43
Attaching the PIN privacy shield – optional	44
Powering up the YUMI Portable	45
Chapter 10. Using your YUMI	. 47
Touchscreen	47
Reading contactless cards or devices	47
Reading chip cards	48
Reading magstripe cards	48
Resetting the YUMI	. 49
Chapter 11. Cleaning your YUMI	. 50
Cleaning the device	50
Cleaning the card readers	50
Appendix A. Specifications	
Appendix B. Troubleshooting	
Warning message displayed	
YUMI does not read cards	
YUMI cannot make 4G/WiFi/Bluetooth connection	
Display not working	
Wired connection with external equipment not working	
YUMI Portable reboots unexpectedly	
Appendix C. Approvals and certifications	
Approvals	
Certifications	. 57

#### YUMI Owner Manual

Appendix D. Safety information	<b>5</b> 8
Safety recommendations	58
Servicing	58
Appendix E. Decommissioning	59
Decommissioning step by step	59

## **List of Figures**

1-1.	USB plugs	. 1
2-1.	Card-reader orientation	. 2
2-2.	PIN privacy shield	. 3
3-1.	Top view (contactless reader facing the customer)	. 5
3-2.	Bottom view	. 6
3-3.	Full colour touchscreen	6
3-4.	Contactless reader	. 8
3-5.	Chip-card reader	. 8
3-6.	Magstripe-card reader	9
3-7.	Cameras	10
3-8.	Power button	11
3-9.	Card slots	11
3-10.	Speaker and headphone socket	12
3-11.	Kensington slot	13
4-1.	Sockets on interface board	14
4-2.	Cable anchors and pole/stand fixation sockets	16
4-3.	Mains adaptor	16
4-4.	PIN privacy shield components	17
4-5.	Fixation plate and stand	18
4-6.	Revolving pole and flip-over pole	19
5-1.	Battery pack	20
5-2.	Mains adaptor	21
5-3.	PIN privacy shield components	22
6-1.	YUMI Countertop with mains adaptor	23
7-1.	YUMI Portable with mains adaptor and battery pack	26
8-1.	Opening the card-slot cover	30
8-2.	Card slots	30
8-3.	Inserting SAM card, micro SIM card, micro SD card	30
8-4.	Screw-holes for PIN shield wings	31
8-5.	Free-standing and fixed	32
8-6.	YUMI and stand	33
8-7.	Routing cables through a stand	34
8-8.	Fitting a fixation plate to a stand	34
8-9.	Sockets for attaching a YUMI to a fixation plate	35
8-10.	Fitting a YUMI to a stand	35
8-11.	Locking screw for release clip	36
8-12.	Removing a YUMI from a stand	36
8-13.	YUMI on a revolving pole	37
8-14.	Sockets for attaching a YUMI to a mounting plate	38
8-15.	Flip-over pole	39
3-16 <sub>-</sub>	Sockets for attaching a YUMI to a mounting plate	39

8-17.	Routing cables through wall	40
8-18.	Sockets for attaching a YUMI to a fixation plate	41
8-19.	Cables tie-wrapped to cable anchor-points	42
9-1.	Opening the card-slot cover	43
9-2.	Card slots	44
9-3.	Inserting SAM card, micro SIM card, micro SD card	44
9-4.	Screw-holes for PIN shield wings	45
9-5.	Inserting battery pack in battery bay	45
9-6.	Clicking battery pack into place	46
10-1.	Tapping a contactless card or device	48
10-2.	Inserting a chip card	48
10-3.	Swiping a magstripe card	49
11-1.	Cleaning the card readers	50
A-1.	Dimensions	52
B-1.	Warning message on tampered YUMI	55

## **About this pre-release document**

This is a pre-release document, offered for review before the product and its documentation have been finalised. Bear in mind that:

- · other documents mentioned may not yet be available
- information on approvals and certification is purely indicative: updated information will be published on the terminals.worldline website when available
- some software features (for example, contactless engines) and hardware features (for example, wireless interfaces) are not yet available
- for ease of reading, some deliberate duplication occurs between chapters specific to one or other version

## **Chapter 1. About this manual**

The *Owner Manual* contains general information to help the merchant with setting up the YUMI, including:

- · key features, accessories and technical specifications
- · unpacking and preparing for operation
- · hardware operations such as reading a card
- · cleaning the YUMI

#### Note

This *Owner Manual* is intended as a resource where partners can find the information they need to assemble and translate their own documentation. It is not intended for delivery to merchants as-is. To make it easier for partners to repurpose the content of this document, some deliberate duplication occurs.

## **USB** terminology

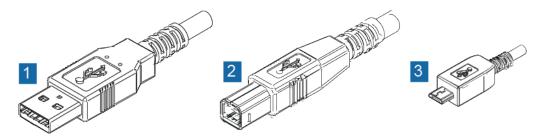


Figure 1-1. USB plugs

1	USB host (USB A)
2	USB device (USB B)
3	micro-USB device (micro-USB B)

#### Note

The functionality of USB connectors always depends on driver availability and on platform releases.

## **Chapter 2. Introduction**

The YUMI is a new-generation device for use as a payment terminal and as a platform for approved apps. It is for attended use in indoor retail environments. Based on Android™ 9 and a 7" full colour touchscreen, it offers a new user experience for merchants and customers, and is open to approved third-party Android-based apps including PCI-compliant secure payments via the Worldline payment interface (WPI). The YUMI has won a Red Dot award – the seal of quality for exceptional product design – in 2019, and the iF design award in 2020.

The YUMI is designed as an enabler for a cashless society – already supporting mobile/ contactless payments, card payments, wearable payments, transactions with or without PIN – that is easy to use. Help for the visually impaired is built in, with headphone socket and Accessibility button plus alternative solutions for PIN entry. Your best sales assistant ever, the YUMI opens up new possibilities before, during and after the check-out process: loyalty schemes, donations and tax rebates are just some examples of third-party apps for added value.

Key features of the YUMI range include:

can be used with the contactless reader or the chip-card reader nearest the customer

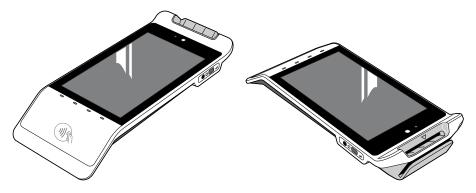


Figure 2-1. Card-reader orientation

- reads contactless cards and devices, chip cards and magstripe cards
   Where to read each type of card or device is clear, thanks to thoughtful positioning of readers, and graphics on the screen can add extra information.
- large, full colour touchscreen for easy user interaction
  - The user interface both for day-to-day operations and for configuration tasks uses the touchscreen as interface. A keypad is displayed on the screen whenever PIN entry or data entry is needed. For security, the PIN entry keypad is clearly distinct from the data-entry keypad. Take advantage of the 7" colour screen to display information such as supported payment schemes: no need for stickers any more!
- optional PIN privacy shield, an essential feature for customer security
   The same shield helps deliver PIN privacy no matter which way the YUMI is held.

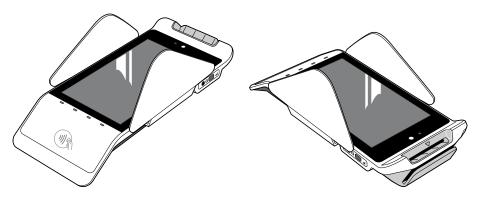


Figure 2-2. PIN privacy shield

- fast processors, more memory and superior cryptographic functionalities for the best in performance
- supports digital receipts to cut down on the use of paper, reducing both the ecological footprint and merchant operating-costs

#### **Variants**

The YUMI is equally suitable for use as a countertop device or a portable device. Each configuration is adapted to match the way the merchant prefers to work.

#### **YUMI Countertop**

The countertop variant of the YUMI is optimised to be used on a countertop or other surface; it can also be wall-mounted. Features include:

- · wired and wireless communication interfaces
- can be ECR-coupled
- powered via mains adaptor or via Power over Ethernet (PoE)
- · focus on unique experience for the customer
- · apps for customer and merchant

#### **YUMI Portable**

The portable variant of the YUMI is designed for portable use. Features include:

- · wireless communication interfaces
- · can be ECR-coupled
- · powered via battery
- · operated by both merchant and customer
- · payment and business apps for both merchant and customer on same device

#### **YUMI Start**

The YUMI Start is a special version of the countertop configuration, with its own specifications. It can be used for starting development, for demonstrations and for pilot projects.

- wired communications only (Ethernet, serial, USB)
- · powered via mains adaptor
- · no camera, ambient light sensor or PoE

ARM Cortex A9 main processor and Android KitKat

## **Chapter 3. About the YUMI**

This chapter describes the key hardware features of the YUMI.

Additional features specific to the countertop or portable configurations are described in the YUMI Countertop and YUMI Portable chapters.

The drawings below identify the main parts of the YUMI. Remember that the YUMI can be used with the contactless reader or the chip-card reader at the bottom, facing the customer. It can also be used both in portrait orientation and in landscape orientation.

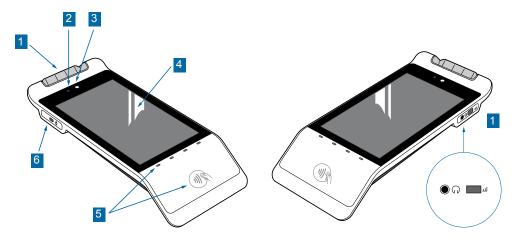


Figure 3-1. Top view (contactless reader facing the customer)

left-hand side	
1	chip-card reader (speaker and magstripe-card reader are mounted behind the chip-card reader)
2	ambient light sensor
3	front camera
4	7" full colour touchscreen
5	contactless reader and status LEDs
6	slot for Kensington lock
right-hand side	
1	headphone socket; Accessibility button

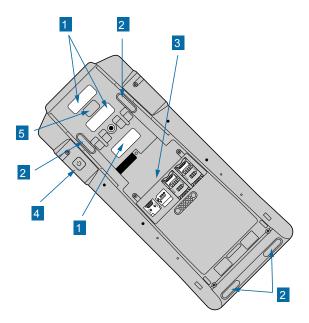


Figure 3-2. Bottom view

1	product information labels
2	rubber feet
3	2 SAM card slots, 1 micro SD card slot, optional micro SIM card slot
4	power button
5	back camera

## Full colour touchscreen

The first thing merchants and customers notice about the YUMI is the 7" full colour touchscreen.



Figure 3-3. Full colour touchscreen

Characteristics of the touchscreen include:

- 720 x 1280 pixel resolution
- · aspect ratio 16:10
- 16M colours
- drop-resistant Corning® Gorilla® Glass with anti-scratch, anti-reflection treatment

- · backlight with adjustable intensity and contrast
- automatic display orientation and brightness adjustment thanks to accelerometer and ambient light sensor

Working with a large touchscreen offers plenty of scope for usable, comfortable applications for both merchants and customers:

- large size allows for clearer presentation of information such as logos of supported payment schemes, plus (depending on apps) marketing messages, shop information, on-screen signatures and other interaction
- · PIN-on-glass experience with good-size keys
- · better brightness and contrast for better readability
- · GUI as used on tablets and smartphones

#### Readers

The YUMI has three readers:

- · contactless (NFC) card/device reader
- chip-card reader (EMV 4.3 level 1)
- triple-track magstripe-card reader (ISO 1/2/3)

The characteristic design of the YUMI allows easy access to all card and device readers. Where to read each type of card and device is clear, thanks to thoughtful positioning of interfaces.

The YUMI can be held whichever way the customer prefers. The orientation of the user interface adapts automatically.

#### Note

The GUI on the 7" screen makes it easy to highlight the active readers when the customer is ready to make a payment.

#### Contactless reader

The contactless reader is the interface used most often. It is easily accessible on the YUMI, and positioned so that when you tap your card or phone, the messages on screen always remain readable. The YUMI can be used with the contactless reader facing towards or away from the customer.

The contactless reader of the YUMI offers customers the real "tap & go" experience. Thanks to the powerful antenna in the device, the contactless device only has to be held near the landing zone. The landing zone of the contactless reader is:

- · easily recognisable and accessible
- marked by the Contactless logo, which shows where customers should tap their card or device and which is embossed to help the visually-impaired locate the zone easily



The contactless reader is equipped with four status LEDs. The first LED stays lit when the contactless reader is enabled. The other LEDs light up in turn during a contactless transaction.

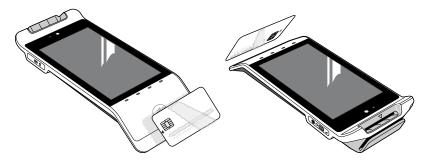


Figure 3-4. Contactless reader

The contactless reader supports fast, fully secure payments with contactless cards and devices of all signalling schemes defined by ISO 14443 type A and B. The MasterCard PayPass and the Visa payWave engines are available as standard. Other engines can be provided on customer request. Specific contactless applications are developed locally, since they deal with communications between terminal and host.

Depending on platform release and app availability, the contactless reader can also be used to read NFC tags in devices (as an alternative to barcode scanning), to act as an NFC tag (send a shop ID, till ID or similar information to smartphones), to reload NFC-based travel cards and so on. NXP MIFARE will be included in a future release; other schemes such as Sony Felica can be developed upon request. These schemes can be integrated in contactless cards, mini-cards, watches, key-fobs and mobile phones.

#### **Chip-card reader**

The chip-card reader is the usual interface for contact cards. Customers have the choice of inserting their card vertically as with the YOMANI terminals, or from the front as with the YOXIMO and YOMOVA terminals.

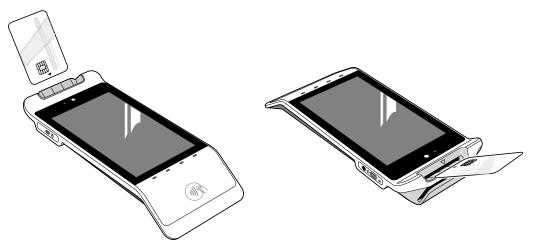


Figure 3-5. Chip-card reader

The chip-card reader is at 45° to the screen, which means it is always easy to insert a card whether the YUMI is on a counter, wall-mounted or hand-held.

#### Magstripe-card reader

As the least common option, the magstripe-card reader is not as prominently visible as the chip-card reader. The design lets customers hold their card upright when swiping. The length of the reader provides extra card guidance, resulting in an optimal reading quality.

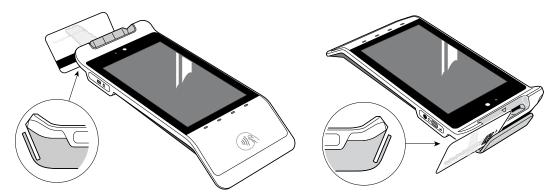


Figure 3-6. Magstripe-card reader

#### Wireless communications

The YUMI always supports WiFi/Bluetooth and Bluetooth LE. The wireless interfaces are integrated on the main PCB. 4G (EU or US) can be specified at order time, and is supported by a specific micro SIM card.

#### Note

The range of all wireless connections may be reduced by obstructions (walls, metal constructions) and interference (PCs, monitors ...)

#### WiFi

WiFi lets you integrate one or more YUMI as nodes in a wireless local area network (WLAN) connecting equipment such as ticket printers, computers and ePOS equipment.

WiFi is highly flexible and gives coverage in a radius of around 80 metres. No network cabling is required. When several access points are available, the YUMI connects to the strongest signal. The device will adapt to the security installed on the access point in use; for example WPA or WPA2.

The WiFi interface for the YUMI has the following main specifications:

- conforms with IEEE 802.11 a/b/g/n standard (2.4 and 5 GHz supported)
- · low-power, small form-factor, integrated solution
- · communication speed of up to 24 Mbps through air (unobstructed)

#### **Bluetooth**

Bluetooth on the YUMI has a range of up to 10 m, and supports both Bluetooth and Bluetooth LE.

Bluetooth has the following main specifications:

- class 1
- · Bluetooth version 4.2
- · communication speed of up to 1 Mbps

Bluetooth LE has the following main specifications:

- Bluetooth Smart v4.2 low energy
- support for multiple beaconing formats (iBeacon, Eddystone and so on)
- · Bluetooth LE stacks with support of both GATT Client and GATT Server
- support for data transfer service (DTS)
- communication speeds between 10-30 kbit/s between the YUMI and a mobile phone in connect mode

#### 4G

4G on the YUMI supports the latest advances in wireless data communications.

It has the following main specifications:

- · dedicated micro SIM card slot
- for the EU configuration: Bands 1, 3, 5, 7, 8 and 20 (2100,1800, 850, 2600, 900 and 800 MHz)
- for the US configuration: Bands 2, 4, 5, 7 and 17 (1900, 1700, 850, 2600 and 700 MHz)
- Cat 4
- · communication speed upload 50 Mb/s; download 150 Mb/s
- · full roaming service
- · fallback to 3G / 2G
- VolTE

#### Cameras

The YUMI is equipped with 5-megapixel cameras front and back.

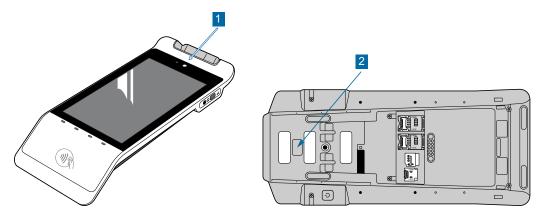


Figure 3-7. Cameras

1	front camera – for reading a QR code/barcode from a smartphone or product label, or for image capture; for example, to take a picture to complete a registration
2	back camera – for reading a QR code or barcode printed on a product label, allowing sell/scan/pay scenarios

#### **Power button**

The YUMI is equipped with a physical power button, positioned so that it cannot be pressed accidentally during usage or transport. The button is marked with the standard "power" icon.

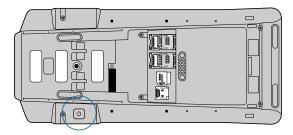


Figure 3-8. Power button

The behaviour of the power button depends on the YUMI model and on the mode the device is in:

- when the YUMI is operational, a long press (10 seconds) on the power button restarts the device after the screen turns completely black
- when the YUMI is in sleep mode, a short press on the button starts up the device

#### **Card slots**

The YUMI has two slots for SAM cards, plus a slot for a micro SD card to provide extra memory. An additional micro SIM card slot is present when the 4G option has been specified at order time.

The SAM card slots (type ID0) for secured application modules (SAM, CSM) support 5 V cards. The two card slots together provide up to 80 mA; one of the card slots can be used as a Powered SAM (PSAM) supporting 50 mA current usage.

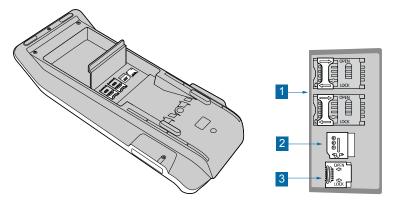


Figure 3-9. Card slots

1	2 * SAM card slots
2	micro SIM card slot (4G option, specified at order time)
3	micro SD card slot

## Audio and accessibility

The YUMI is equipped with a speaker for audible feedback to the user, and with a headphone socket so visually-impaired users can have private audio guidance for the most important screens.

When appropriate apps have been installed, the speaker can be used to play:

- music (supported formats include .mp3 and .wav)
- · voice output, for example as assistance for the blind and partially-sighted
- simple beep tones

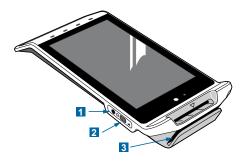


Figure 3-10. Speaker and headphone socket

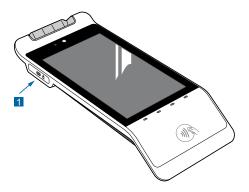
1	headphone socket
2	Accessibility button
3	speaker (behind chip-card reader)

Depending on the apps installed, the Accessibility button can have different functions, depending on whether or not the headphone socket is in use.

- when the socket is not in use, pressing the Accessibility button can be used to change the visual interface to make it easier for visually-impaired users
- · when the socket is in use, the Accessibility button can act as a volume control switch

## **Kensington slot**

The YUMI is equipped with a Kensington® slot. Combined with a flexible cable/lock from Kensington, this offers reliable physical security for your device.



#### 1. Kensington slot

Figure 3-11. Kensington slot

#### Note

Worldline does not supply locks.

13

## **Chapter 4. YUMI Countertop**

This chapter describes the features specific to the Countertop variant: wired communications, power supply, and accessories.

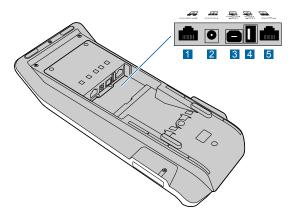


Figure 4-1. Sockets on interface board

1	Ethernet
2	power input socket
3	USB device (USB B)
4	USB host (USB A)
5	serial

## Wired communications

The interface board on the YUMI Countertop provides four wired communication sockets. The board is located on the underside of the device.

#### Related information

• Power supply - Countertop

#### **Ethernet**

The Ethernet interface lets you integrate one or more YUMI Countertop as nodes in a wired local area network (LAN) connecting equipment such as ticket printers, computers and ePOS equipment.

The IEEE 802.3 compliant Ethernet interface has the following main specifications:

- enables the device to communicate according to the internet protocol suite
- communications speed up to 100 Mbps
- 10 Base-T/100 Base-TX compatible interface
- RJ45 socket

#### **USB** device

The USB device connection is for data communications with ePOS equipment, a PC or other powered peripherals. It cannot be used for powering the YUMI.

The USB device interface has the following main specifications:

- USB 2.0 high speed compatible
- · communications speed up to 480 Mbit/s
- · USB B socket

#### **USB** host

The USB host connection lets the YUMI provide power and data to suitable peripherals, for example a ticket printer, a biometrics device or a barcode reader.

The USB host interface has the following main specifications:

- · USB 2.0 high speed compatible
- · communications speed up to 480 Mbit/sec
- · USB A socket

The USB host interface may also used for software loading from a USB stick, routing multimedia (audio and video) to an external display, and so on.

#### RS-232 serial

The serial interface provides a wired connection between the YUMI and ePOS equipment or a PC. It can also be used to connect peripherals such as a barcode reader or a ticket printer.

The serial interface has the following main specifications:

- RS-232 compliant
- communications speed up to 115,200 bps
- · RJ45 socket

#### Note

It is possible to plug the Ethernet cable into the serial socket (or the serial cable into the Ethernet socket) by mistake. This will not damage the YUMI, but there will be no communication with the network.

## Cable anchor-points and pole/stand fixation sockets

The YUMI is equipped with two anchor-points, where the different cables used can be tiewrapped so that plugs do not come out of their sockets.

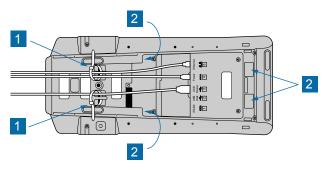


Figure 4-2. Cable anchors and pole/stand fixation sockets

1	tie-wraps (not supplied) and anchor-points
2	sockets for optional fixation plate/mounting plate

## **Power supply – Countertop**

The interface board on the YUMI Countertop provides an Ethernet socket for Power over Ethernet (PoE) and a power input socket for an indoor mains adaptor. The board is located on the underside of the device.

The mains adaptor has:

- input 100 240 VAC, 50 60 Hz, 0.6 A
- output 5 VDC, 3.0 A

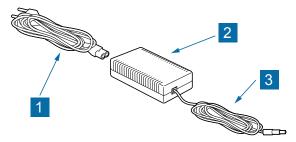


Figure 4-3. Mains adaptor

1	region-specific mains cable
2	mains adaptor
3	power cable (from mains adaptor to YUMI)

For safety in use, use only the mains adaptor supplied by Worldline.

If you want to have just one cable for power supply and data communications, use the Power over Ethernet (PoE) option according to the 802.3af/at standard, where power is taken from a PoE-enabled device. To use this option:

- the Ethernet switch must include specific PoE sockets
- the Ethernet cable must be at least CAT 5e

#### **Related information**

Wired communications

## **Accessories – Countertop**

Optional accessories are available, to make the YUMI Countertop easy to use and enhance security:

- · PIN privacy shield
- · fixation plate and stand
- pole (third-party product)

#### PIN privacy shield

A PIN shield is an important factor in protecting PINs while customers are using the YUMI. The PIN shield kit consists of two identical wings, which can be used with the contactless reader facing towards or away from the customer, plus fixing screws. Screw-holes are already present on the underside of the YUMI.

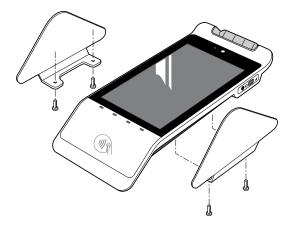


Figure 4-4. PIN privacy shield components

The PIN shield and the customer's body can protect against shoulder-surfing from directly behind the customer or to either side. Mounting the YUMI Countertop on an approved stand or pole holds it at a 45° angle so the PIN shield offers a maximum of protection and complies with PCI requirements. PCI regulations also point out that:

- customers need to understand how to use their body and hands (without touching the touchscreen) to protect their PIN from people who may be watching
- merchants need to understand how and where to deploy PIN entry devices, especially with respect to customer queues and in-store security cameras

## Fixation plate and stand

Using a fixation plate, the YUMI Countertop can be attached to a counter or to a wall, or mounted securely in the stand.

After the fixation plate has been screwed to the stand, the stand can be fixed to the counter with screws or non-damaging options such as double-sided adhesive tape. The YUMI then clicks on to the fixation plate. The orientation of the contactless reader – at the top or the bottom of the YUMI – depends on the way the fixation plate is attached to the stand.

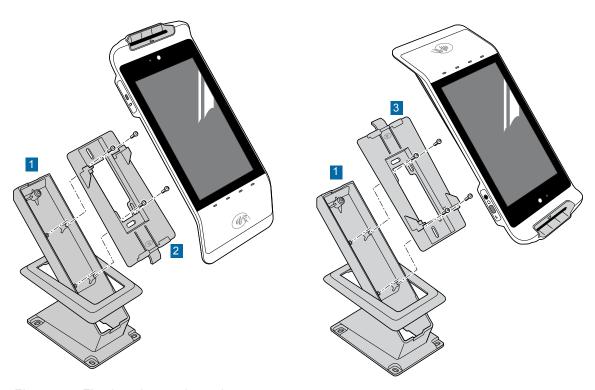


Figure 4-5. Fixation plate and stand

1	stand, securely fixed to counter or similar horizontal surface
2	fixation plate to hold the YUMI with contactless reader at the bottom: note position of release clip
3	fixation plate to hold the YUMI with contactless reader at the top: note position of release clip

#### Note

Both the fixation plate and the stand are YUMI-specific. The footprint of the YUMI stand is the same as the footprint of the YOMANI fixation plate, so you can re-use the same screws / holes.

The fixation plate measures 83 mm wide, 165 mm long and 29 mm high, and weighs 40 g.

The stand measures 101 mm wide, 158 mm long and 179 mm high, and weighs 175 g.

#### **Poles**

Fitting a YUMI on a revolving pole can often make it easier to use, especially where counter space is important. If you already use a revolving pole, you only need to fit the correct mounting plate. Contact the pole supplier.

A new option with the YUMI is the flip-over pole, from SpacePole. This lets you flip the YUMI (portrait orientation) from merchant-facing to customer-facing. The flip-over pole also revolves.

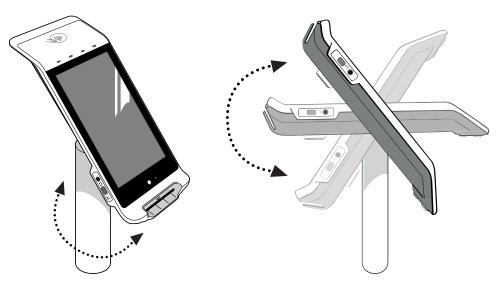


Figure 4-6. Revolving pole and flip-over pole

## **Chapter 5. YUMI Portable**

This chapter describes the features specific to the Portable variant: battery pack, power supply and accessories.

## **Battery pack**

The YUMI Portable is powered by a 3.7 VDC, 5200 mAh Lithium-Ion battery pack.

Charge the battery regularly – do not wait for it go flat. To charge the battery, connect the mains adaptor to the power input socket on the battery pack itself. The integrated charger means that a battery can be charged inside or outside the YUMI, with no need for a separate charging station. To make sure your YUMI is always operational, you can charge a second battery pack outside the device.

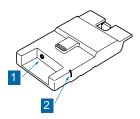


Figure 5-1. Battery pack

1	power from mains adaptor
2	status LED (lit when battery pack is connected to mains adaptor)

A steady LED on the battery pack indicates the charging status:

- · if the LED is green, the battery is fully charged
- · if the LED is orange, the battery is charging

#### CAUTION

A blinking LED indicates a malfunction, and you are advised to replace the battery pack.

### Caring for the battery

Lithium-Ion batteries can be left charging all the time, because they do not suffer from the "memory effect". Recharging an empty battery takes about 3 hours.

A Lithium-Ion battery normally achieves full performance only after two or three complete charge-discharge cycles, and then delivers peak performance until it has been recharged 500 times or for around three years after it is built; check the battery label for the build date. After this, it may need charging more frequently but still continue to deliver acceptable performance for up to three years longer. Many factors have an influence on performance and battery life, including:

- · how intensively the battery is used
- · the average charge level

· the operating temperature

Lithium-Ion batteries discharge slowly inside the device, even when it is switched off. When the YUMI will be out of use for more than a week, Worldline recommends removing the battery pack and storing it separately to keep it in optimal condition. A 40% charge and a storage temperature between 5° to 20°C give best results.

Battery autonomy is temporarily reduced when operating at extremely high or low temperatures.

#### Safety precautions for batteries

Use only YUMI battery packs from Worldline

- use the battery only for its intended purpose
- · keep the battery out of reach of children
- ideally, use the battery in surroundings between 15°C and 25°C

Leaving the battery in cold or hot places, such as in a closed car in winter or summer conditions, will reduce the capacity and lifetime of the battery.

The battery may explode if damaged or exposed to fire or high temperatures.

· do not dismantle or short-circuit the battery

Accidental short-circuiting can occur when a metallic object causes direct connection between battery contacts. This might happen when carrying a spare battery pack in your pocket together with for example a coin, a clip, a necklace, a hairpin.

- do not pierce the battery with nails, strike it with a hammer, step on it or otherwise subject it to strong impacts or shocks
- do not place the battery in microwave ovens, high-pressure containers or on induction cooking plates
- · do not expose the battery to water or salt water, or allow the battery to get wet
- stop using the battery immediately if it emits an unusual smell, feels hot, changes colour or shape, or appears abnormal in any way

## Power supply - Portable

The YUMI Portable is powered from a battery pack.

The battery pack is charged using an indoor mains adaptor with:

- input 100 240 VAC, 50 60 Hz, 0.6 A
- output 5 VDC, 3.0 A

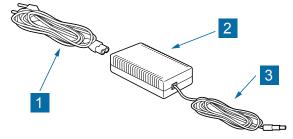


Figure 5-2. Mains adaptor

1	region-specific mains cable
2	mains adaptor
3	power cable (from mains adaptor to YUMI battery pack)

For safety in use, use only the mains adaptor supplied by Worldline.

### **Accessories - Portable**

The YUMI Portable can be equipped with a PIN privacy shield that can be screwed on to the device to enhance security.

A PIN shield is an important factor in protecting PINs while customers are using the YUMI. The PIN shield kit consists of two identical wings, which can be used with the contactless reader facing towards or away from the customer, plus fixing screws. Screw-holes are already present on the underside of the YUMI.

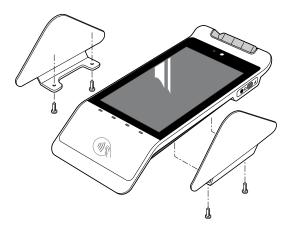


Figure 5-3. PIN privacy shield components

Customers also need to understand that they can use their hands and body (without touching the touchscreen) to protect their PIN from people who may be watching. The PIN shield and the customer's body can protect against shoulder-surfing from directly behind the customer or to either side.

## Chapter 6. Unpacking your YUMI Countertop and choosing a location

You can call a technician or a field engineer to help you install your YUMI or you can do it yourself. If you decide to install the device yourself, follow the guidelines below.

- remember that neither Worldline nor its vendor will bear any responsibility or cost for malfunctioning, breakdowns or any anomaly that may result from incorrect manipulation of the device
- read the Safety recommendations before proceeding with the installation of your YUMI
- in case of problems, contact your vendor do not try yourself to repair or alter it in any way
- · use only accessories provided by your vendor

## Unpacking and checking your YUMI Countertop

1. Check whether the contents of the package are complete.

It should contain at least a YUMI, and a power supply. This will be either a mains adaptor plus region-specific mains cable, or an Ethernet cable for PoE. Your vendor may also include some product documentation. If anything is missing, contact your vendor immediately.

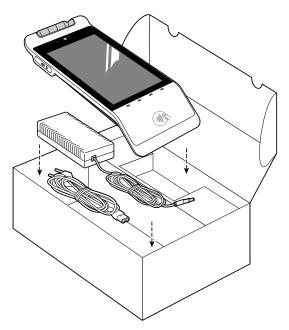


Figure 6-1. YUMI Countertop with mains adaptor

2. Inspect the package and its contents for damage.

If there are any signs of damage, contact your shipping company immediately and notify your vendor.

- 3. For security reasons, check the YUMI and make sure:
  - there is no sign of unusual cables connected anywhere
  - · there is no foreign object in either of the card readers
  - · the device is not visibly damaged

the serial number (on the label) corresponds to your inventory

If there are any security problems contact your vendor immediately, who may then report the problem to Worldline.

#### Note

Save the cartons and packing material for repacking or moving your YUMI in the future.

## Unpacking and checking the optional stand

- 1. Check whether the contents of the package are complete.
- 2. Inspect the package and its contents for damage.

In addition to the stand, the package should contain a fixation plate, a cover-plate for the fixing screws and an Allen key.

If anything is missing or damaged, contact your shipping company immediately and notify your vendor.

#### Note

Save the cartons and packing material for repacking or moving the stand in the future.

## Selecting a location for your YUMI Countertop

Finding a proper location is an important aspect of installing your YUMI. Customers need the necessary privacy when entering their PIN code. This means locating/using the YUMI outside the field of vision of cameras, mirrors and so on.

Follow these guidelines to find a location that is convenient for both you and your customers. In general, make sure that:

- · there is enough space around the YUMI for you and your customers to:
  - tap a contactless card or device on to the landing zone
  - use the touchscreen
  - insert a chip card in the chip-card reader
  - swipe a magstripe card with the magstripe-card reader
  - reach the power button and the Accessibility button
  - change the orientation of the device landscape/portrait and flip/revolve from merchant-facing to customer-facing
- the device is at an appropriate height for the customer:
  - for people who will be standing up to use the device, the centre of the touchscreen should be between 80 cm and 125 cm above ground-level
  - for people who will be sitting down to use the device, the height of a standard table is appropriate

· the device is at an appropriate angle

Mounting the YUMI on the optional stand ensures a viewing angle of 45° for effective use of the PIN shield.

· direct light sources do not make it difficult to read the screen

#### Note

The YUMI has been designed to be a secure, free-standing device: building the YUMI into a desk or panel is not allowed. Other Worldline devices are available if you need a payment terminal for unattended/semi-unattended use.

## **Physical surroundings**

The YUMI has been designed for daily indoor use in surroundings between 0° C and 50° C with a non-condensing relative humidity (RH) between 20% and 85%.

#### always avoid exposing your YUMI to:

- · shocks and vibrations
- · excessive heat and dust
- · explosive environments
- · oil or moisture
- · water or condensation
- · direct sunlight or objects that radiate heat
- · environments where humidity fluctuations might occur
- electromagnetic fields and/or excessive voltage fluctuations, often caused by electric motors or high-frequency devices

#### never place/use your YUMI:

- less than 80 cm from any low-frequency Electronic Article Surveillance (EAS) system
- less than 20 cm from any high-frequency (8 MHz and above) Electronic Article Surveillance (EAS) system

EAS gates are commonly placed at store exits, to identify potentially stolen items as customers leave the store.

## Chapter 7. Unpacking your YUMI Portable and choosing a location

You can call a technician or a field engineer to help you install your YUMI Portable or you can do it yourself. If you decide to install the device yourself, follow the guidelines below.

- remember that neither Worldline nor its vendor will bear any responsibility or cost for malfunctioning, breakdowns or any anomaly that may result from incorrect manipulation of the device
- read the Safety recommendations before proceeding with the installation of your YUMI
- in case of problems, contact your vendor do not try yourself to repair or alter it in any way
- · use only accessories provided by your vendor

## **Unpacking and checking your YUMI Portable**

1. Check whether the contents of the package are complete.

It should contain at least a YUMI, a mains adaptor and region-specific mains cable, and a battery pack. Your vendor may also include some product documentation. If anything is missing, contact your vendor immediately.

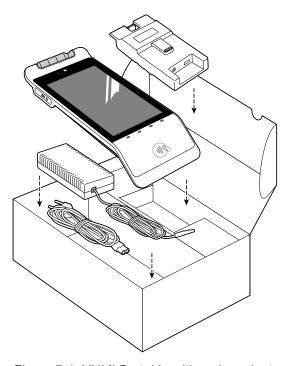


Figure 7-1. YUMI Portable with mains adaptor and battery pack

2. Inspect the package and its contents for damage.

If there are any signs of damage, contact your shipping company immediately and notify your vendor.

- 3. For security reasons, check the YUMI and make sure:
  - · there is no sign of unusual cables connected anywhere
  - · there is no foreign object in either of the card readers

- · the device is not visibly damaged
- the serial number (on the label) corresponds to your inventory

If there are any security problems contact your vendor immediately, who may then report the problem to Worldline

#### Note

Save the cartons and packing material for repacking or moving the your YUMI in the future.

## Selecting a location for your YUMI Portable

Finding a proper location is an important aspect of using your YUMI. Customers need the necessary privacy when entering their PIN code. This means locating/using the YUMI outside the field of vision of cameras, mirrors and so on.

Follow these guidelines to find a location that is convenient for both you and your customers. In general, make sure that:

- there is enough space around the YUMI for you and your customers to:
  - tap a contactless card or device on to the landing zone
  - use the touchscreen
  - insert a chip card in the chip-card reader
  - swipe a magstripe card with the magstripe-card reader
  - reach the power button and the Accessibility button
  - change the orientation of the device from merchant-facing to customer-facing
- · direct light sources do not make it difficult to read the screen

## Physical surroundings

The YUMI has been designed for daily indoor use in surroundings between 0° C and 50° C with a non-condensing relative humidity (RH) between 20% and 85%.

#### always avoid exposing your YUMI to:

- · shocks and vibrations
- · excessive heat and dust
- · explosive environments
- · oil or moisture
- · water or condensation
- · direct sunlight or objects that radiate heat
- · environments where humidity fluctuations might occur
- electromagnetic fields and/or excessive voltage fluctuations, often caused by electric motors or high-frequency devices

#### never place/use your YUMI:

- less than 80 cm from any low-frequency Electronic Article Surveillance (EAS) system
- less than 20 cm from any high-frequency (8 MHz and above) Electronic Article Surveillance (EAS) system

EAS gates are commonly placed at store exits, to identify potentially stolen items as customers leave the store.

# Chapter 8. Preparing the YUMI Countertop for operation

#### **CAUTION**

Make sure the YUMI is not connected to a power supply: disconnect the mains adaptor or the Ethernet cable, depending on how your device is powered. Avoid electrostatic discharge, as this can severely damage the equipment. For guidelines on minimising the risk of electrostatic discharge, see the Safety recommendations

### At this stage, you need to:

- install any optional cards you are using: SAM (Secure Application Module), micro SIM card, micro SD card
- 2. attach the PIN shield, if you are using one
- 3. connect all cables, if you are using the YUMI free-standing, or fix the YUMI to a stand/pole and then connect all cables

### Related information

· Safety recommendations

### **Installing cards – optional**

### About this task

The YUMI Countertop has two slots for SAM cards, plus a slot for a micro SD card to provide extra memory. An additional micro SIM card slot is present when the 4G option has been specified at order time.

- · some applications may require the use of a SAM card
- · you may install a micro SD card for extra memory
- · you may install a micro SIM card if you are using 4G wireless communication

#### **Procedure**

1. Open the card-slot cover as shown.

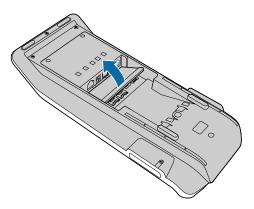


Figure 8-1. Opening the card-slot cover

2. Locate each card holder you want to use.

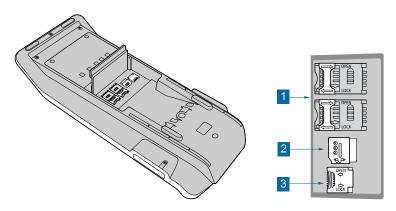


Figure 8-2. Card slots

1	2 * SAM card slots
2	micro SIM card slot (4G option, specified at order time)
3	micro SD card slot

a. Unlock and open the card holder, then insert the card.

Make sure that the card is correctly aligned and completely inserted. SAM cards and SIM cards have a bevel on one corner; a micro SD card has a notch in one side.

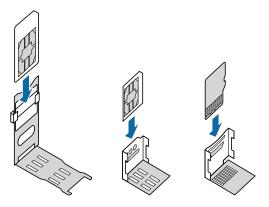


Figure 8-3. Inserting SAM card, micro SIM card, micro SD card

b. Close and lock the card holder.

3. If you are not installing any other cards, close the card-slot cover.

The cover clicks into place.

### Attaching the PIN privacy shield - optional

### **Procedure**

1. Take the first wing and line up the screws (already fitted in the wing) with the screw-holes on the underside of the YUMI

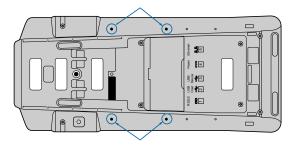


Figure 8-4. Screw-holes for PIN shield wings

Make sure the PIN shield wing faces upwards, as shown in Chapter 4, Figure 4-4.

2. Tighten the screws with the Allen key provided.

Do not over-tighten the screws.

3. Repeat these steps for the second wing.

### Free-standing or fixed?

You have four options for setting up your YUMI Countertop: free-standing, fixed to a stand, fixed to a pole, or wall-mounted.

Whichever option you choose, you always need to identify the cable or cables you are going to use:

- serial (RS-232)
- USB
- Ethernet
- · power cable

The order in which you connect the cables to the YUMI is important.

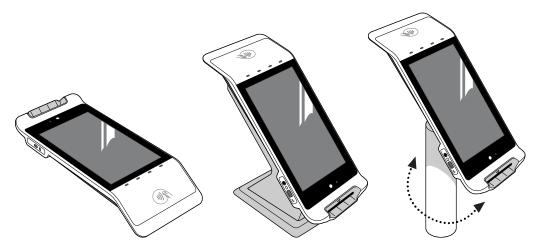


Figure 8-5. Free-standing and fixed

- for a free-standing YUMI, all you need to do is connect the cables, which you may route through a hole in the counter
- for a YUMI fixed to a stand, you need to route the cables through the stand and fix the stand to the counter before you connect the cables to the YUMI

You can route the cables through a hole in the counter if required, before routing them through the stand.

You must decide whether you want to use the YUMI with the contactless reader at the top or the bottom, before you fix the YUMI to the stand.

 for a YUMI fixed to a revolving pole, you need to route the cables through a hole in the counter and then through the pole. Fix the pole to the counter before you connect the cables to the YUMI

With a revolving pole, you must decide whether you want to use the YUMI with the contactless reader at the top or the bottom before you fix it to the pole. With a flip-over pole, you can flip the YUMI so that the contactless reader is at the top or the bottom.

• for a wall-mounted YUMI, you need to route the cables through a hole in the wall and then through the fixation plate before screwing the plate to the wall

You must decide whether you want to use the YUMI with the contactless reader at the top or the bottom before you screw the fixation plate to the wall.

### Related information

- Leaving the YUMI free-standing
- Fixing the YUMI to a stand
- · Fixing the YUMI to a revolving pole
- Fixing the YUMI to a flip-over pole
- · Fixing the YUMI to a wall
- · Connecting cables

### Leaving the YUMI free-standing

Make sure that cables are positioned so that they allow for the necessary movement of the YUMI, and do not get in the way of you or your customers. Connect the cables to the YUMI as described in Connecting cables.

### Fixing the YUMI to a stand

### About this task

Fixing the YUMI to a stand lets you present it at the ideal angle for use and route cables tidily. First, decide whether you want to use the YUMI with the contactless reader at the top or bottom. Then you can attach the fixation plate to the stand accordingly.

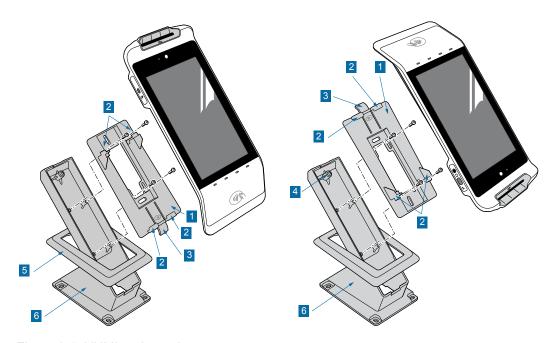


Figure 8-6. YUMI and stand

1	fixation plate (Contactless logo on release clip lines up with Contactless logo on the back of the YUMI)
2	lugs (engage with sockets on the back of the YUMI)
3	release clip for YUMI
4	screw-hole (locking screw for release clip)
5	cover-plate for screws fixing stand to counter
6	stand

### **Procedure**

- 1. Drill a hole in the counter for the cables, if required, and fix the stand firmly to the counter.
  - Use screws for maximum stability, though double-sided tape is another possibility. Screws are not provided, because the type of screw depends on the construction of the counter.
  - Slide the cover-plate up for access to the screw-holes. Leave the cover-plate up so you can easily route the cables.
- 2. Route the cable or cables you are using.

The cables must pass between the stand and the fixation plate, either from behind the stand or from underneath the stand through a hole in the counter. Slide the cover-plate down after routing the cables.

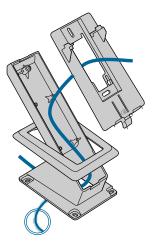


Figure 8-7. Routing cables through a stand

3. Align the fixation plate to the pre-mounted screws on the stand, press the fixation plate against the stand, slide it towards the release clip then tighten the screws.

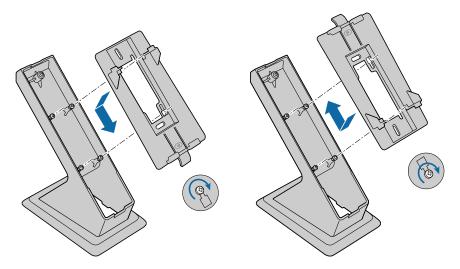


Figure 8-8. Fitting a fixation plate to a stand

The position of the Contactless logo on the release clip matches the position of the Contactless logo on the YUMI.

- 4. Connect the cables to the YUMI, as described in Connecting cables.
- 5. Align the YUMI with the lugs on the fixation plate, then press the YUMI against the fixation plate and slide it towards the contactless reader until you hear a click.

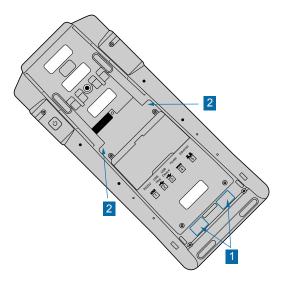


Figure 8-9. Sockets for attaching a YUMI to a fixation plate

1	sockets for lugs on end of fixation plate (near Contactless logo)
2	sockets for lugs on sides of fixation plate

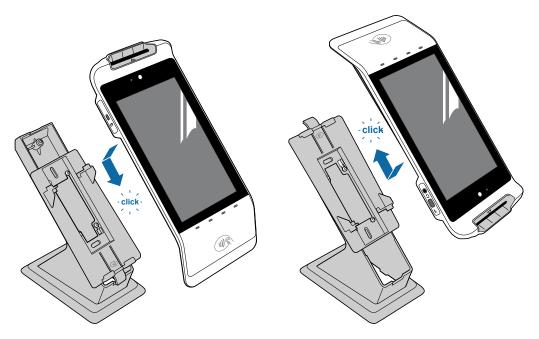


Figure 8-10. Fitting a YUMI to a stand

The position of the Contactless logo on the release clip matches the position of the Contactless logo on the YUMI.

- 6. Adjust the cables to make sure they hang freely but without too much slack,
- 7. When you are using the YUMI with the contactless reader at the top, you are advised to use the locking screw to attach the YUMI firmly to the fixation plate.

This screw blocks the release clip.

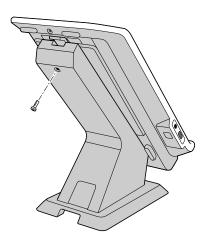


Figure 8-11. Locking screw for release clip

### What to do next

To remove the YUMI from the stand, first check the position of the contactless reader: if the contactless reader is at the top, start by unscrewing the optional locking screw at the top of the stand.

Next, use your fingertip or a thin flat object such as the tip of a screwdriver to hold the release clip away from the YUMI. Slide the YUMI towards the chip-card reader and lift it off the fixation plate.

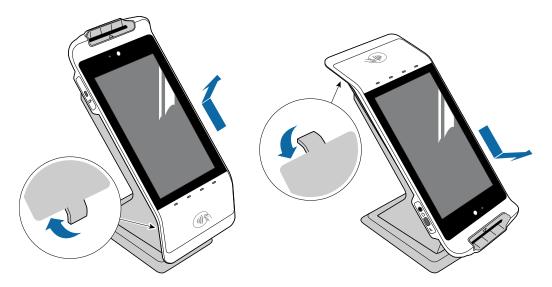


Figure 8-12. Removing a YUMI from a stand

### Fixing the YUMI to a revolving pole

### About this task

Attaching the YUMI to a revolving pole lets you enter information on the device and then turn the YUMI so that it faces the customer. The customer can then use the device for payment and other services. You can attach the YUMI with the contactless reader at the top or the bottom.

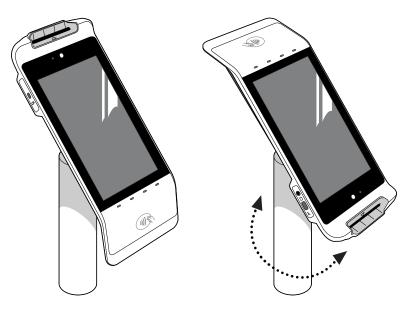


Figure 8-13. YUMI on a revolving pole

### **Procedure**

- 1. Drill a hole in the counter for the cables, if required, and fix the pole firmly to the counter.
  - Slide the cover-plate up for access to the screw-holes, then slide it down again to cover the screw-heads. Because the type of screw depends on the construction of the counter, screws are not provided.
- 2. Decide whether you want to use the YUMI with the contactless reader at the top or the bottom, then screw the mounting plate to the pole.
  - The Contactless logo on the YUMI will line up with the Contactless logo on the mounting plate.
- 3. Route the cable or cables you are using through the counter and the pole, then connect them to the YUMI as explained in Connecting cables.
  - The cables must pass over the mounting plate.
- 4. Hold the YUMI so that the contactless reader on the YUMI and the Contactless logo on the mounting plate line up.
- 5. Insert the lugs on the mounting plate in the sockets on the underside of the device, press the YUMI against the mounting plate, slide it towards the contactless reader and tighten the retaining screw.

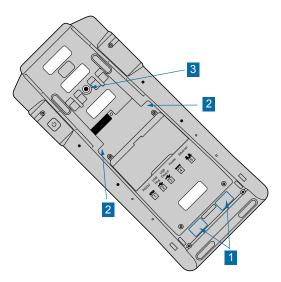


Figure 8-14. Sockets for attaching a YUMI to a mounting plate

1	sockets for lugs on end of mounting plate (near Contactless logo)
2	sockets for lugs on sides of mounting plate
3	threaded socket (with metal bush) for retaining screw

6. Adjust the cables down through the pole to make sure they hang freely but without too much slack, then tighten the retaining screw.

The threaded socket on the back of the YUMI is level with the headphone socket.

### What to do next

To remove the YUMI from the pole, first unscrew the retaining screw that secures the YUMI to the mounting plate. Slide the YUMI towards the chip-card reader to release it from the mounting plate, then lift it off the mounting plate.

### Fixing the YUMI to a flip-over pole

### About this task

Attaching the YUMI to a flip-over pole lets you enter information on the device and then flip the YUMI over so that it faces the customer. The customer can then use the device for payment and other services.

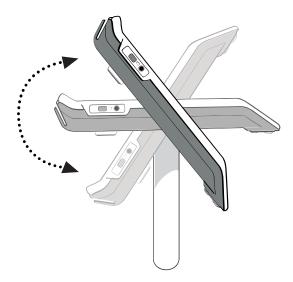


Figure 8-15. Flip-over pole

### **Procedure**

- Drill a hole in the counter for the cables, if required, and fix the pole firmly to the counter.
   Slide the cover-plate up for access to the screw-holes, then slide it down again to cover the screw-heads. Because the type of screw depends on the construction of the counter, screws are not provided.
- 2. Attach the mounting plate to the pole as described in the supplier documentation.
- 3. Route the cable or cables you are using through the counter and the pole, then connect them to the YUMI as explained in Connecting cables.

The cables must pass over the mounting plate.

- 4. Make sure the Contactless logo on the mounting plate is at the bottom, then hold the YUMI with the contactless reader at the bottom.
- 5. Insert the lugs on the mounting plate in the sockets on the underside of the device, then press the YUMI against the mounting plate and slide it down towards the contactless reader.

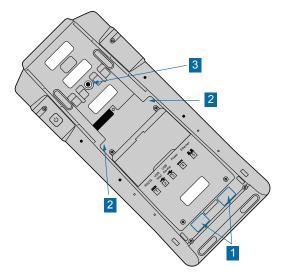


Figure 8-16. Sockets for attaching a YUMI to a mounting plate

1	sockets for lugs on end of mounting plate (near Contactless logo)
2	sockets for lugs on sides of mounting plate
3	threaded socket (with metal bush) for retaining screw

6. Adjust the cables down through the pole to make sure they hang freely but without too much slack, then tighten the retaining screw.

The threaded socket on the back of the YUMI is level with the headphone socket.

### What to do next

To remove the YUMI from the pole, first unscrew the retaining screw that secures the YUMI to the mounting plate. Slide the YUMI towards the chip-card reader to release it from the mounting plate, then lift it off the mounting plate.

### Fixing the YUMI to a wall

#### About this task

Attaching the YUMI to a wall or other vertical surface lets you make the YUMI available without needing counter space. Decide before you start whether you want to attach the device with the contactless reader at the top or the bottom.

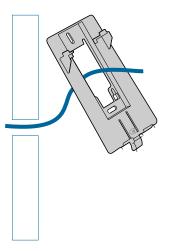


Figure 8-17. Routing cables through wall

### **Procedure**

- 1. Drill a hole in the wall and route the cables you are using.
  - The cables must pass through the hole in the wall and through the fixation plate.
- 2. Align the fixation plate to match the way you want to use the YUMI.
  - The contactless reader on the YUMI and the Contactless logo on the fixation plate will line up.
- 3. Screw the fixation plate firmly to the wall.
  - Because the type of screw depends on the wall material, screws are not provided.
- 4. Connect the cables to the YUMI, as explained in Connecting cables.

5. Align the YUMI with the lugs on the fixation plate, then press the YUMI against the fixation plate and slide the device towards the contactless reader until you hear a click.

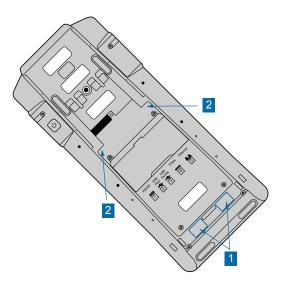


Figure 8-18. Sockets for attaching a YUMI to a fixation plate

1	sockets for lugs on end of fixation plate (near Contactless logo)
2	sockets for lugs on sides of fixation plate

The position of the contactless logo on the release clip matches the position of the contactless logo on the YUMI.

6. Adjust the cables to make sure they hang freely but without too much slack.

### What to do next

Use your fingertip or a thin flat object such as the tip of a screwdriver to hold the release clip away from the YUMI. Slide the YUMI towards the chip-card reader to release it from the mounting plate, then lift it off the mounting plate.

### Connecting cables

### About this task

When you are connecting more than one cable to the YUMI, make sure you connect them in the order given here.

### **Procedure**

- 1. Plug in the serial (RS-232) cable, if you are using one.
- To connect the YUMI to USB host equipment for example ePOS equipment, a PC or other powered peripherals – plug the USB device plug of the USB cable into the USB device socket on the YUMI.

### CAUTION

The maximum recommended length for USB cables is 3m.

- 3. To connect the YUMI to USB device equipment for example a ticket printer, a biometrics device or a barcode reader plug the USB host plug of the USB cable into the USB host socket on the YUMI.
- 4. Plug in the Ethernet cable, if you are using one.
- 5. If you are using a mains adaptor to power the YUMI, plug the power cable from the mains adaptor into the power input socket on the YUMI.

#### Note

Do not connect the adaptor to the wall socket yet

6. Divide the cables into two groups, then tie-wrap each group and attach it to one of the cable anchor-points on the YUMI.

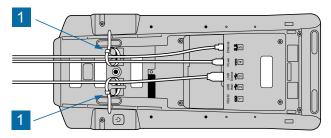


Figure 8-19. Cables tie-wrapped to cable anchor-points

7. Connect the free end of all cables to external equipment, network router and so on, then power up the YUMI as described in Powering up the YUMI Countertop.

### **Powering up the YUMI Countertop**

The YUMI is normally powered from a mains adaptor or by PoE (Power over Ethernet). If you use a mains adaptor, then for safety reasons make sure it is supplied by your vendor.

#### mains adaptor

- 1. make sure any communications cables you are going to use are connected
- connect the YUMI to the external equipment (serial cable, USB cable or Ethernet cable)
- 3. plug the mains cable into the mains adaptor, then plug the free end into the wall socket

The display lights up. After booting, the YUMI is ready for use.

### Power over Ethernet (PoE)

- 1. make sure any communications cables you are going to use are connected
- 2. connect the YUMI to the external equipment (serial cable, USB cable)
- 3. plug the Ethernet cable into a free PoE socket on a powered switch or router

The display lights up. After booting, the YUMI is ready for use.

# **Chapter 9. Preparing the YUMI Portable for operation**

#### **CAUTION**

Disconnect the mains adaptor. Avoid electrostatic discharge, as this can severely damage the equipment. For guidelines on minimising the risk of electrostatic discharge, see the Safety recommendations.

- install any cards you are using: SAM (Secure Application Module), micro SIM card, micro SD card
- 2. Attach the PIN shield, if you are using one.

### Related information

- Safety recommendations
- · Safety recommendations

### Installing cards - optional

### About this task

The YUMI Portable has two slots for SAM cards, plus a slot for a micro SD card to provide extra memory. An additional micro SIM card slot is present when the 4G option has been specified at order time.

- · some applications may require the use of a SAM card
- · you may install a micro SIM card if you are using 4G wireless communication
- · you may install a micro SD card for extra memory

### **Procedure**

1. Open the card-slot cover as shown.

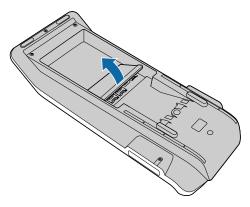


Figure 9-1. Opening the card-slot cover

2. Locate each card holder you want to use.

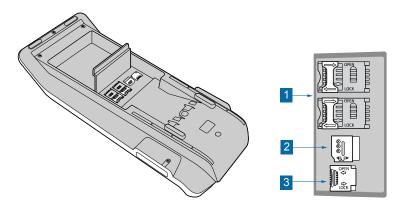


Figure 9-2. Card slots

1	2 * SAM card slots
2	micro SIM card slot (4G option, specified at order time)
3	micro SD card slot

a. Unlock and open the card holder, then insert the card.

Make sure that the card is correctly aligned and completely inserted. SAM cards and SIM cards have a bevel on one corner; a micro SD card has a notch in one side.

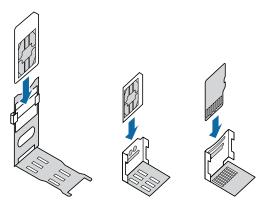


Figure 9-3. Inserting SAM card, micro SIM card, micro SD card

- b. Close and lock the card holder.
- 3. If you are not installing any other cards, close the card-slot cover.

The cover clicks into place.

# Attaching the PIN privacy shield – optional

### **Procedure**

1. Take the first wing and line up the screws (already fitted in the wing) with the screw-holes on the underside of the YUMI

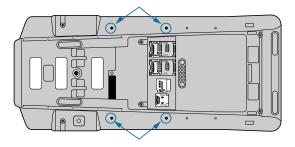


Figure 9-4. Screw-holes for PIN shield wings

Make sure the PIN shield wing faces upwards, as shown in Chapter 4, Figure 4-4.

- Tighten the screws with the Allen key provided.Do not over-tighten the screws.
- 3. Repeat these steps for the second wing.

### Powering up the YUMI Portable

### About this task

You cannot use the YUMI Portable without a battery pack. The battery is charged by connecting the mains adaptor to the power input socket on the battery pack itself. Charging starts as soon as you connect the power supply.

For safety in transit, the battery pack is not fitted in the YUMI delivered, and is not fully charged. The battery can be charged inside or outside the device, with no need for a separate charging station. You can, for example, work with two battery packs and swap them whenever you need to. For safety in use, use only the mains adaptor supplied by Worldline

### **Procedure**

Insert the battery pack in the battery bay of the YUMI
 Insert the two tabs on the battery pack in the sockets in the battery bay, as shown.

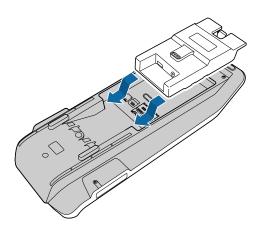


Figure 9-5. Inserting battery pack in battery bay

2. Press the battery pack down gently but firmly until you hear it click into place.

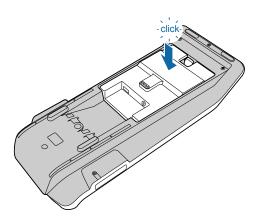


Figure 9-6. Clicking battery pack into place

3. Connect the power cable from the mains adaptor to the battery pack to start charging the battery.

An LED on the battery pack indicates the charging status.

- · a steady green LED shows that the battery is fully charged
- a steady orange LED shows that the the battery is charging
- a blinking LED indicates a malfunction, and you are advised to replace the battery pack
- 4. Press the power button to boot the YUMI ready for use.

# Chapter 10. Using your YUMI

With its familiar, Android-style interface and large touchscreen, the YUMI is easy to use both for basic payment operations and for any other apps you have decided to install.

#### Note

See the separate *YUMI Merchant Manual* for more information on the new payment interface and other functions, and on installing apps.

For security reasons, though, you are advised to check your YUMI every working day. Make sure that:

- · there is no sign of unusual cables connected anywhere on the device
- · there is no foreign object in either of the card readers
- · the device is not displaying any warning message such as



- · the device is not visibly damaged
- · the serial number (on the label) corresponds to your inventory

#### Related information

· Warning message displayed

### **Touchscreen**

The 7" colour touchscreen is the single user interface for everything you do.

The large touchscreen offers plenty of scope for usable, comfortable applications for both customer and merchant. Just use your finger! if you prefer to use a stylus, contact your vendor for advice.

### Reading contactless cards or devices

Contactless cards and devices can be read up to 4 cm from the landing zone.

### **Procedure**

1. Tap the contactless card or device on the landing zone of the contactless reader.

The landing zone, marked by the Contactless logo, indicates the spot where the radio frequency signal is the strongest. When you are using a contactless card, the position of the chip is not important.

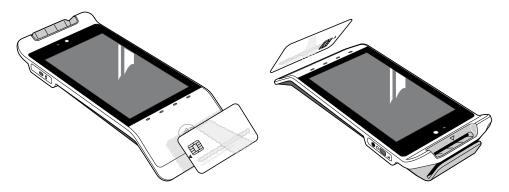


Figure 10-1. Tapping a contactless card or device

The first LED is lit when the YUMI is ready to read contactless cards and devices. The other LEDs provide feedback on the card reading progress. Their exact behaviour depends on the payment scheme or the application. A beep reminds customers to take their card or device away from the NFC landing area.

2. Complete the transaction as prompted.

The audible cue for "transaction successfully completed" must be heard from the YUMI at the end of the transaction.

### Reading chip cards

Insert the chip card in the chip-card reader with the chip visible.

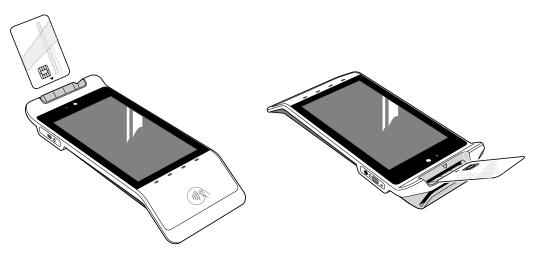


Figure 10-2. Inserting a chip card

### Related information

YUMI does not read cards

## Reading magstripe cards

Magstripe cards are still used for loyalty schemes and in closed user groups.

The magstripe-card reader is located behind the chip-card reader. Slide the card through the magstripe-card reader with the stripe at the bottom and facing the YUMI. You can slide the card in either direction.

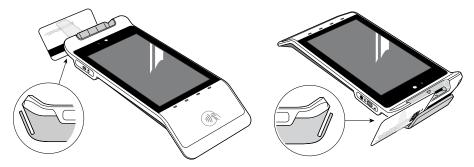


Figure 10-3. Swiping a magstripe card

### Related information

YUMI does not read cards

### **Resetting the YUMI**

If the YUMI locks up for any reason, you can reset it by pushing the power button on the underside of the device.

Push the button firmly and keep it pressed until the screen goes blank. Release the button and wait for the YUMI to reboot.

#### Note

The time the device takes to reboot depends on the applications installed.

# **Chapter 11. Cleaning your YUMI**

This section covers:

- · cleaning the touchscreen and the case
- · cleaning the card readers

### Cleaning the device

### About this task

Clean your YUMI regularly. To avoid damage, do not use detergents, solvents or alcohol.

### **Procedure**

- 1. Disconnect the power supply.
- 2. Activate the lock screen so that cleaning the YUMI will not accidentally launch any app.
- 3. Clean the touchscreen with a cleaning tissue (binderless mixed textile fibre) and displayand multimedia cleaner; these products should be ordered from a specialised supplier such as ECS.
- 4. Clean the case with a soft damp cleaning cloth.
  - Make sure that dirt/moisture does not enter the card readers.
- 5. Remember to reconnect the power supply after cleaning, if necessary.

### Cleaning the card readers

Clean the card readers every two weeks, using a cleaning card.

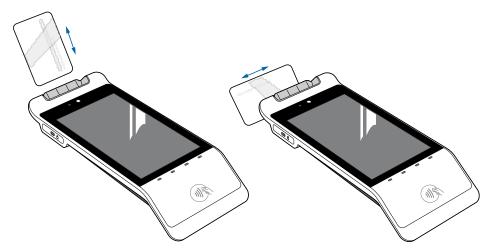


Figure 11-1. Cleaning the card readers

- chip-card reader: insert and remove the cleaning card several times, always with the same side of the card
- magstripe-card reader: pull the cleaning card several times through the reader, always with the same side of the card

Contact your vendor for information about specific types of cleaning card, for example "wet" cleaning cards from a specialised supplier such as ECS.

### Note

If you use dry cleaning cards, mark the used side of the card after each cleaning. The card can be used one time per side, giving four cleanings with each card. See order list for details.

# **Appendix A. Specifications**

### dimensions, appearance and weight (approximate)

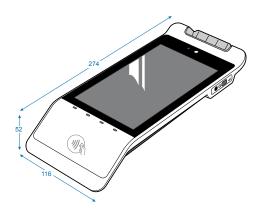


Figure A-1. Dimensions

- 116 mm wide x 274 mm long x 52 mm high
- two-colour case, white and anthracite grey; these colours are based on Natural Colour System codes 8500-N and 1000-N
- · YUMI Countertop 640 g
- YUMI Portable (including battery pack) 740 g

#### processors

- 1.6 GHz Quad-core Cortex A53 application processor
- 1 GHz Cortex A7 security processor

### operating system

Android 9

#### memory

- 2 GB DDR
- · 8 GB Flash
- micro SD card slot (memory expansion)

### display

- 7" full colour touchscreen (16:10)
- 720 x 1280 pixel resolution, 16M colours
- · accelerometer rotates interface to match device orientation
- · ambient light sensor adapts brightness of display to surrounding light levels
- · supports Android-recognised image formats and video codecs

### camera

front and rear cameras 5 MP

### card readers

 integrated NFC reader supports contactless cards and devices ISO 14443 type A and type B

- · chip-card reader
- · triple-track magstripe-card reader

#### card slots

2 SAM card slots Type ID 0

### connectivity/communications - wireless

- · WiFi, Bluetooth and Bluetooth Low Energy 4.2
- 4G EU or 4G US using micro SIM card (to be specified on order)

### connectivity/communications - wired (countertop only)

- · USB 2.0 device
- USB 2.0 host
- Ethernet
- serial (RJ45)

#### audio

integrated speaker, supports Android-recognised audio formats

#### accessibility

- · programmable Accessibility button
- · headphone socket
- alternative solutions for PIN entry

#### payment security

- · hardware DES / 3-DES encryption device
- PCI PIN transaction security (PCI PTS) 5.x
- 3-DES, AES and RSA encryption algorithms
- TLS

additional security schemes available

### approvals and certifications

- PCI PTS 5.x (SRED and Open Protocols)
- MasterCard TQM
- MasterCard PayPass and Visa payWave L2
- EMV Level 1 Contact V4.3
- EMV Level 1 Contactless V2.6
- EU directive 2014/53/EU RED (radio equipment directive)
- EU directives (RoHS3, REACH and WEEE) covering manufacture and end of life

This list is not exhaustive.

#### power

- Power over Ethernet (PoE) (countertop only; single cable for power and communications)
- · mains adaptor/charger 5 VDC, 3.0 A from 100-240 VAC

• rechargeable Lithium-Ion battery 3.7 V 5200 mAh (Portable only)

### environment

- operating temperature 0°C to 50°C
- operating relative humidity 20% to 85% (non-condensing)

#### accessories

- · PIN privacy shield
- fixation plate (countertop only)
- stand (countertop only)
- revolving / flip-over poles (third-party, countertop only)

# **Appendix B. Troubleshooting**

You may wish to check the information in this section before contacting Worldline support. Make sure that installation/maintenance operations are performed by a trusted person. Log all maintenance operations, including the name of the operator.

### Warning message displayed

In the tampered state, the device displays a warning message and it is not possible to use the YUMI to make a payment.



Figure B-1. Warning message on tampered YUMI

When a warning message is displayed, you must:

- 1. stop using the device for payment transactions
- 2. contact the vendor immediately, who may then report the problem to Worldline
- 3. keep the device available for possible forensic investigation

### YUMI does not read cards

The display on the YUMI is working, but there is no response when you read a card.

Possible causes include swiping or inserting a card incorrectly, dirt in the card reader, or a defective card.

- make sure you are swiping or inserting the card correctly
- · clean the card readers with a cleaning card
- · check the card for damage, and try another card

If your payment application allows it, try to complete the transaction manually using the touchscreen keypad instead of the card reader. After the manual transaction has been completed, contact your vendor to have your YUMI repaired or replaced.

### YUMI cannot make 4G/WiFi/Bluetooth connection

#### for 4G

use another 4G device to check that there is enough coverage

### for Bluetooth

check the Bluetooth device, and reconnect as instructed by the vendor

#### for WiFi

- · make sure all components of the network are operational
- check the WiFi access point, and reconnect as instructed by your vendor

• if the connection to the access point is established but the YUMI cannot connect, there may be a problem with the host connection or with the firewall/router settings: check with your IT support

# **Display not working**

• the YUMI might be turned off or in sleep mode

Press the power button underneath the YUMI to turn it on or wake it up

· YUMI Countertop powered from mains adaptor

Check that the power cable is connected to the YUMI, and that the mains cable is connected to the mains adaptor and to the wall socket. Try another wall socket.

YUMI Countertop powered through Ethernet (PoE)

Check that the cable is firmly connected at both ends.

Try another PoE socket on the switch or router.

YUMI Portable

The battery may need charging. If the battery pack is inserted and the device is not starting, the battery is most likely "flat". Connect the power supply to the battery pack to start charging the battery. It may take a few minutes until the battery is charged sufficiently. When the YUMI starts, keep the power supply connected until the the battery is charged completely.

### Wired connection with external equipment not working

Check the cables between the YUMI and the external equipment.

Check the connection settings on the YUMI, as described by your vendor.

# YUMI Portable reboots unexpectedly

With very low battery it is possible that when the YUMI needs more power (for example, while using a 4G connection) the device will reboot. Wait at least 10 minutes before starting a transaction.

# Appendix C. Approvals and certifications

#### Note

These lists are not exhaustive. For up-to-date information on certifications and approvals, see the website terminals.worldline.com

### **Approvals**

The YUMI has been approved in line with international proprietary standards including:

- PCI PTS 5.x (SRED and Open Protocols)
- MasterCard TQM
- MasterCard PayPass and Visa payWave L2
- EMV Level 1 Contact V4.3
- EMV Level 1 Contactless V2.6

### **Certifications**

The YUMI complies with relevant European directives both at manufacture and at end of life:

- European directive 2015/863 on Restriction of Hazardous Substances (RoHS3), intended to reduce harmful substances such as lead, mercury and cadmium at source
- European directive 2006/1907/EC on Registration, Evaluation, Authorisation and Restriction
  of Chemicals (REACH), phasing out the use of potentially dangerous chemicals and
  improving communication at every stage in the supply chain
- European directive 2012/19/EU on Waste Electrical and Electronic Equipment (WEEE), encouraging collection, treatment, recycling and recovery of such items
  - The YUMI is labelled with the WEEE-logo (crossed-out wheeled bin)
- European directive 2014/53/EU on radio equipment (RED)

# **Appendix D. Safety information**

#### **Important**

Worldline declines any liability if the instructions and precautions contained in this manual are not observed.

### Safety recommendations

The YUMI is designed for use as a payment terminal and as a platform for approved apps.

- · handle your YUMI with care: there is no warranty against breakage
- do not drop the YUMI, throw it or slam it; do not put any heavy equipment on top of it or squeeze it
- only use the mains adaptor that is supplied with your YUMI to power the YUMI Countertop or charge the battery of the YUMI Portable
- disconnect the power supply before cleaning the YUMI
- · check regularly that the mains adaptor is not overheating
- · never use extension cables for the DC outlet of the mains adaptor
- · keep the YUMI dry; do not, for example, spray it with water when cleaning
- do not store or use the YUMI in conditions that may harm or interfere with electronic equipment
- do not expose the YUMI to extreme temperatures (refrigerators, hot-air driers, freezers ...)
- when handling micro SD cards, micro SIM cards or SAM cards, take the necessary
  precautions to avoid electrostatic discharge (ESD): store these cards in an antistatic
  envelope, and use a grounded wrist strap
- for specific advice on battery safety, see Safety precautions for batteries

### **Servicing**

All servicing other than the actions described in this manual must be performed by Worldline or an approved service centre.

You may:

- open the card-slot cover to insert / replace / remove a micro SIM card, a SAM card or a micro SD card
- replace the battery pack of a YUMI Portable

Apart from opening the card-slot cover, you must never attempt to open the YUMI. There are no user-serviceable parts inside.

# **Appendix E. Decommissioning**

When a YUMI or any of its accessories is at the end of its life, it must not be simply thrown away, given away or sold. Vendors are responsible for correctly decommissioning devices and their components or accessories locally at their end of life.

#### Remember that:

- · security awareness requires erasing cryptographic components securely and completely
- · sustainability requires recycling as many components as possible
- · environmental awareness requires disposing of hazardous materials professionally

### **Decommissioning step by step**

#### **Procedure**

- Inspect the YUMI for completeness, signs of intrusion and tampering, as explained under Chapter 10
  - If you find any evidence of tampering, report the problem to your vendor and keep the device available for possible forensic investigation. Your vendor may then contact Worldline.
- 2. If you do not find any evidence of tampering, dispose of the YUMI following local rules and regulations for disposal of electronic equipment, such as WEEE. Make sure that the person or organisation responsible effectively destroys the device and its components.
- 3. Log the physical disposal of the device in your assets register.
- 4. Contact your vendor for information about how to return the YUMI to the vendor.