

**SYS-B68-FXV  
INSTALLATION, USE AND WARNINGS MANUAL**

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# 1 Preliminary information

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## 1.1 Device description

The **SYS-B68-FXV** device, is a Panel PC with 21.5" LCD display.

The **SYS-B68-FXV** is a table top touch-screen personal computer for commercial environment application.

The technology developed by **SECO S.p.A.** for the **SYS-B68-FXV** device can be used and applied in various fields, such as:



Digital Signage -  
Infotainment



Industrial  
Automation



Vending

## 1.2 Recipients

This manual is intended for ordinary people and installers (expert users).



**Important!** The user must read this manual before start with any kind of operation.

## 1.3 Warranty

The warranty shall be **voided** in the event of:

- failure to comply with safety regulations;
- tampering with the device;
- changes to the safety conditions established by the Manufacturer in the device management software;
- improper use of the device;
- use of the device by untrained and/or unauthorized personnel or failure to respect duties, as indicated in the manual;
- changes or repairs carried out by the user without written authorization from the Manufacturer;
- partial or total failure to comply with the instructions;
- defects in the mains power supply (electricity, power supply, etc.);
- poor maintenance;
- use of non-original spare parts;
- exceptional events such as floods, fires (if not triggered by the device).

The complete warranty terms are set out in the sales contract.



**Important!** The Manufacturer is not liable for improper use of the device.

## 2 Identification

### 2.1 Manufacturer identification

<b>MANUFACTURER</b>	<b>SECO S.p.A</b>
Address	Via Achille Grandi n°20 52100 Arezzo – Italy Tel: +39 0575 26979 Fax: +39 0575 350210

### 2.2 Device identification

Device	<b>SYS-B68-FXV</b>
Serial number	YYMMXXXXX
Year of manufacturing	<b>2021</b>

### 2.3 Device identification plate

The device is equipped with an **identification plate** located on the side. The plate features the device identification information to be reported to **Seco S.p.A.** if necessary.



**Caution!** It is strictly forbidden to remove the identification plate and/or replace it with other plates.

### 3 Technical specifications

#### 3.1 SYS-B68-FXV device hardware specifications

The table below features the board hardware specifications:

<b>Processor</b>	<p><b>Intel® Celeron® J3455</b>, Quad Core @1.5GHz (Burst 2.3GHz), 2MB L2Cache, 10W TDP</p> <p><b>Intel® Atom™ x5-E3940</b> Quad Core @1.6 GHz (Burst 1.8GHz), 2MB L2 Cache, 9.5W TDP</p> <p><b>Intel® Celeron® N3350</b> Dual Core @1.1GHz (Burst 2.4GHz), 2MB L2 Cache, 6W TDP</p>
<b>Memory</b>	Dual/ Quad Channel soldered down LPDDR4 memory, up to 8GB
<b>Mass Storage</b>	M.2 2260 SATA SSD Module, up to 512GB
<b>Network connection</b>	<p>Dual Gigabit Ethernet RJ45 connector with Gigabit Ethernet i210 controllers</p> <p>M.2 WLAN Connectivity Slot for accessory WiFi/BT module</p>
<b>USB</b>	2 x USB 3.0 Host ports on USB 3.0 Type-A sockets
<b>Video Interfaces</b>	Two DP++ 1.2 interfaces on miniDP connectors
<b>Video Section</b>	<p>21.5" LVDS display, resolution 1920x1080, 30K hours life</p> <p>P-Cap (Projected Capacitive touch screen), with 1.8mm glass cover</p> <p>Glass Hardness IK07, Surface Hardness 7H</p>
<b>Embedded Graphics</b>	<p>Integrated Intel® HD Graphics 500 series controller, with up to 18 Execution Units</p> <p>4K HW decoding and encoding of HEVC MVC</p>
<b>Other Interfaces</b>	<p>Power ON Button with integrated LED</p> <p>TPM 2.0 on-board</p> <p>2x SMA connectors for external WiFi antennas</p>
<b>Power Supply</b>	<p>The device is certificated at 19VDC as per power supply mentioned in this manual. The equipment shall always be supplied from external Power Supply ES1 and PS2/LPS energy levels.</p> <p>The range +18VDC ÷ +32 VDC can be used after verification of compliance.</p> <p>RTC battery included</p>

*Information subject to change. Please visit [www.seco.com](http://www.seco.com) to find the latest version of this manual.*

<b>Power connector</b>	Jack Connector: <ul style="list-style-type: none"> <li>• Constructor CONTACT TECHNOLOGY Corporation</li> </ul> Model: <ul style="list-style-type: none"> <li>• DC-062-4-x-S214</li> </ul>
<b>Operating System</b>	Microsoft® Windows 10 Enterprise (64 bit) Microsoft® Windows 10 IoT Core Yocto (64 bit) Linux
<b>Operating temperature in user environment</b>	0 °C ÷ +50 °C**
<b>Operating humidity in user environment</b>	10 % ÷ 95 % @40°C non-condensing
<b>Transport / storage room temperature range</b>	0 °C ÷ +50 °C**
<b>Transport / storage relative humidity range</b>	10 % ÷ 95 % @40°C non-condensing
<b>Atmospheric Pressure</b>	70 kPa ÷ 106 kPa
<b>Altitude</b>	Up to 2000 m
<b>Max Freq. Oscillators</b>	32.678 KHz; 19.2 MHz; 25 MHz; 2,4 GHz; 5 GHz
<b>IP insulation grade</b>	IP20
<b>Weight</b>	9.5 Kg (without support)
<b>Type of installation</b>	Fastening with screws



**Attention!** \*\*The values indicated refer to the **maximum temperature of the environment of use** of the device. It is the customer’s responsibility to verify that the temperature remains within the admissible range indicated in this manual and, if necessary, adopt any passive cooling solution together with an application-dependent cooling system that can ensure that the heat sink temperature will not damage the device itself and/or the connected mechanical parts.



### 3.2 Software Specifications

FXVXXXXYY.BBB software version, where:

- XXX is 000 in standard version and assumes other values in customized versions
- YY is the revision
- BBB is the BIOS version

Software version is released on the SECO website <https://www.seco.com> and is always updated and available, even in later versions.

### 3.3 CE reference directives

**SECO S.p.A.** places the device on the market, equipping and providing it with:

- CE marking as IT device
- Declaration of Conformity
- User manual

Please also note that the device has been designed according to the following Directives:

- 2014/30/EU Electromagnetic Compatibility Directive
- 2014/53/EU (RED) (Where applicable, depending on the versions)
- 2012/19/EU (WEEE)
- 2011/65/EU (RoHS)

This device is designed and intended for Indoor use only, not for wet location, Overvoltage Category II, Pollution Degree 2.

	AT	BE	BG	HR	CY	CZ	DK
	EE	FI	FR	DE	EL	HU	IE
	IT	LV	LT	LU	MT	NL	PL
	PT	RO	SK	SI	ES	SE	UK

Operation frequency and radio-frequency power are listed as below:

- WLAN 2.4 GHz ≤ 20 dBm
- WLAN 5 GHz ≤ 23 dBm
- Bluetooth 2.4 GHz ≤ 20 dBm

### 3.1 FCC disclaimer

This device complies with the FCC Rules and Contains Transmitter Module FCC ID: 2ALZB-D14MED

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

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which 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:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

### 3.2 IC disclaimer

This device complies with the IC Rules and Contains Transmitter Module 22688-D14MED

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

Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

CAN ICES-3(B)/NMB-3(B)

This device complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions:

- (1) This device may not cause interference;
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- (1) l'appareil ne doit pas produire de brouillage;
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

The device meets the exemption from the routine evaluation limits in section 2.5 of RSS 102 and compliance with RSS-102 RF exposure, users can obtain Canadian information on RF exposure and compliance.

Le dispositif rencontre l'exemption des limites courantes d'évaluation dans la section 2.5 de RSS 102 et la conformité à l'exposition de RSS-102 rf, utilisateurs peut obtenir l'information canadienne sur l'exposition et la conformité de rf.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

Cet émetteur ne doit pas être Co-placé ou ne fonctionnant en même temps qu'aucune autre antenne ou émetteur. Cet équipement devrait être installé et actionné avec une distance minimum de 20 centimètres entre le radiateur et votre corps.

## 4 Safety devices

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### 4.1 Warnings



**Caution!** It is the user's responsibility to apply preventive and protective measures, in accordance with the legislation of the country of installation and use of the device.



**Caution!** Only use the power supply, screw for ground connection, power cord and antennas supplied by the manufacturer.



**Caution!** Only connect certified peripherals / devices to the device.



**Important!** Operations on the device must be carried out by specialized and authorized personnel only.



**Caution!** Always disconnect the electrical power supply before carrying out any work on the device.



**Caution!** Check that the electrical voltage meets the values indicated in this manual before connecting the device.



**Caution!** Disconnect the device from any power source before cleaning.



**Warning!** The enclosure of the device must be cleaned only with a dry cloth.



**Caution!** Do not pour liquids of any kind on the device. This may cause fires and/or electric shocks.



**Caution!** Keep the device away from exposure to moisture values outside the admissible range indicated in this manual.



**Caution!** The device must always be fixed to a machine before proceeding with any type of operation and/or use.



**Caution!** To avoid the risk of electric shock, this equipment must only be connected to a supply mains with Functional earth.



**Caution!** It is strictly forbidden to modify the appliance in order not to compromise the characteristics relating to the declared requirements.



**Caution!** Make sure that any part of the device cannot come in contact with an unconscious, anaesthetized or incapacitated patient.



**Warning!** Keep the device at a distance > 20 cm from the human body (SAR requirements).



**Warning!** It is strictly forbidden to cover the device during operation.



**Warning!** Personnel training is a responsibility of the manufacturer of the device to which the SYS-B68-FXV will be connected.








**Warning!** Make sure that the fixing nut on the earth connection it's correctly fixed to the pin on the back of the device.



**Warning!** The equipment shall always be supplied from external Power Supply ES1 and PS2/LPS energy levels.

## 4.2 Safety pictograms affixed on the device and used in the manual

The device and the manual are equipped with symbols, as indicated in the table below:

PICTOGRAM	DESCRIPTION
	<p><b>CE marking</b></p>
	<p><b>FCC mark</b></p>
	<p><b>Functional earth</b></p>
	<p><b>Warning! Read the manual before use</b></p>
	<p><b>WEEE/RAEE</b> Indicates the separate collection of electronic and electrical equipment according to Directive 2012/19/EU.</p>

## 5 Characteristics and components of the device

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The **SYS-B68-FXV** is a semi-finished device for process control applications, to be integrated into machinery for industrial use.

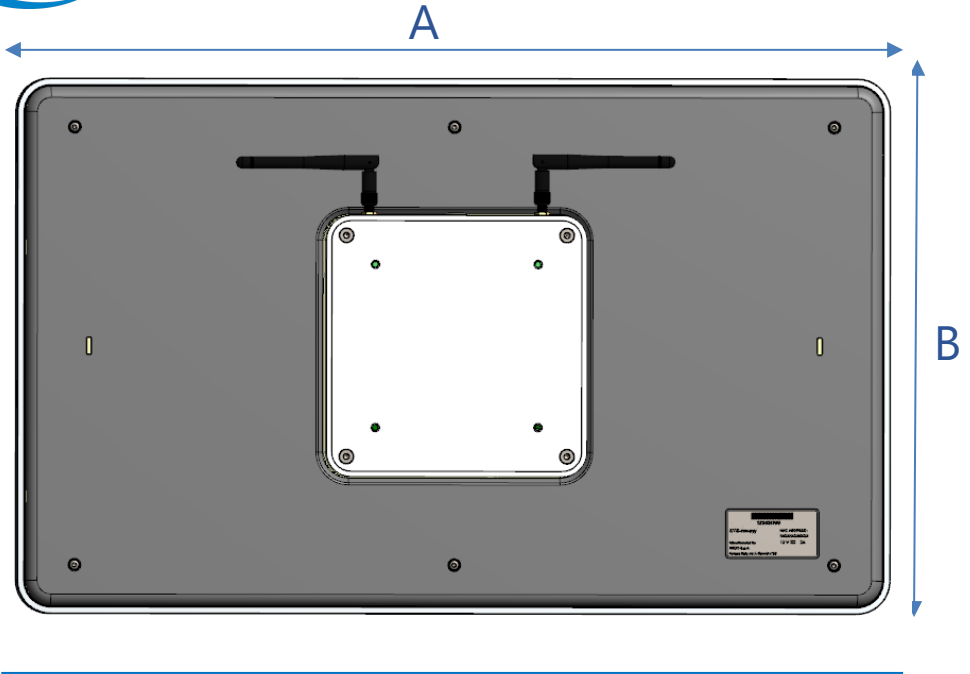


**Caution!** When running, the device can reach very high temperatures, causing the danger of burns when in contact with the heat sink.

A back cover with universal fastening points is fastened to the connection frame. The inserts are the only fastening system to integrate the device on any of the customer's machines.

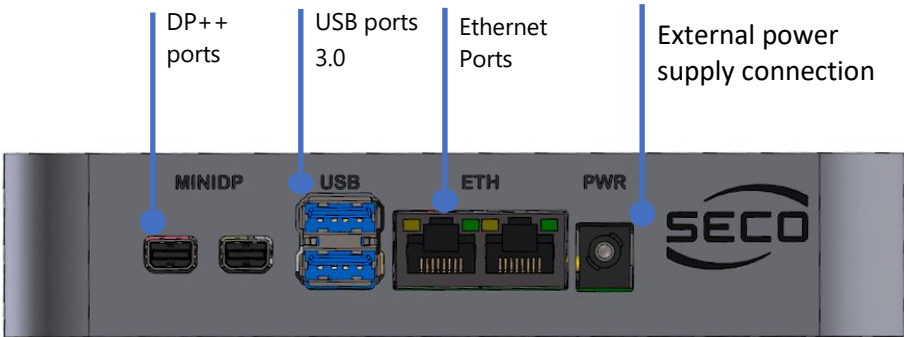
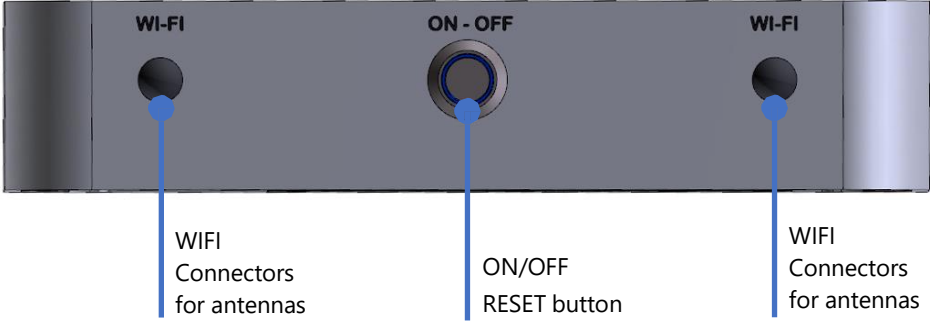
### 5.1 Measurement layout

<b>Length (A)</b>	537 mm
<b>Width (B)</b>	328,5 mm
<b>Height</b>	53,5 mm
<b>Centre-to-centre distance of fastening holes</b>	See fixing technical drawing in the next page





## 5.2 Components



## 6 Permitted environmental conditions

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### 6.1 Transport and storage environmental conditions

The table below features permissible environmental conditions for transport and storage.

<b>Room temperature range</b>	0 °C ÷ + 50 °C
<b>Relative humidity range</b>	10 % ÷ 95 % @40°C non-condensing

### 6.2 Operating environmental conditions

Use of the device and of associated control systems that differ from those listed below is **not** permitted.

In particular, the installation and operation environment must **not** be:

- Exposed to environmental temperatures exceeding 0 °C to + 50 °C;
- Exposed to limit areas of 2,000 m.a.s.l.;
- Exposed to excessive humidity (minimum 5%, maximum 85 %) and rapid changes in relative humidity (above 0.005 p.u./h);
- Exposed to corrosive fumes;
- Exposed to excessive dust;
- Exposed to abrasive dust;
- Exposed to oil vapours;
- Exposed to powder or gas explosive mixtures;
- Exposed to salt air;
- Exposed to vibrations, impacts or abnormal shocks;
- Exposed to weather conditions beyond the limits permitted or dripping;
- Exposure to unusual transport or storage conditions;
- Exposure to high or rapid thermal changes (above 5K/h);
- Presence of nuclear radiation.



**Caution!** Environmental conditions that differ from those specified may seriously damage the device. Positioning the device in environments that do not correspond to those indicated shall render the warranty null and void for the parts to be replaced.



**Important! SECO S.p.A.** shall not be held liable if these instructions are not complied with.

## 7 Installation

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### 7.1 Installing the device

The power button is backlit by a LED when the device is on.

The device does not generate system messages, error messages or fault messages.



**Warning!** Only use the power supply supplied by the manufacturer: **GLOBTEK**

Model: **GT-46600-6024-5.0-T2**

It's mandatory to use this power supply! If other power supply will be used, referring directive of usage's destination.



**Warning!** For the earth connection, use only the type of screw supplied by the manufacturer.



**Warning!** Only use the power cord supplied by the manufacturer.



**Warning!** Only use the antennas supplied by the manufacturer.

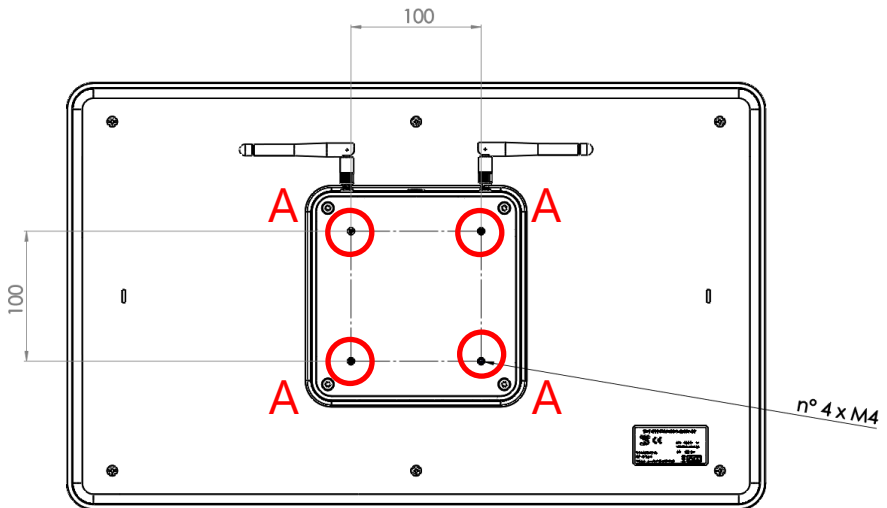


**Warning!** Be sure to fix the device by fastening the screws.

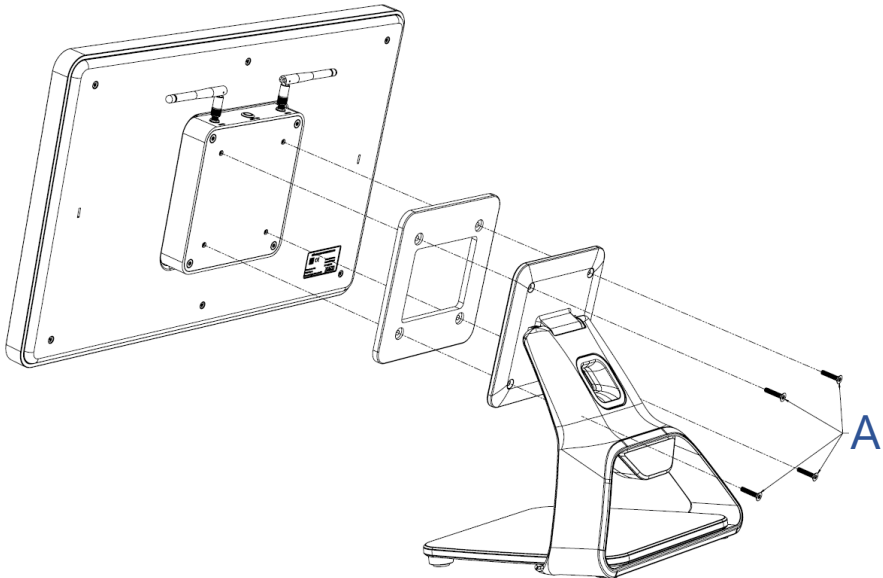
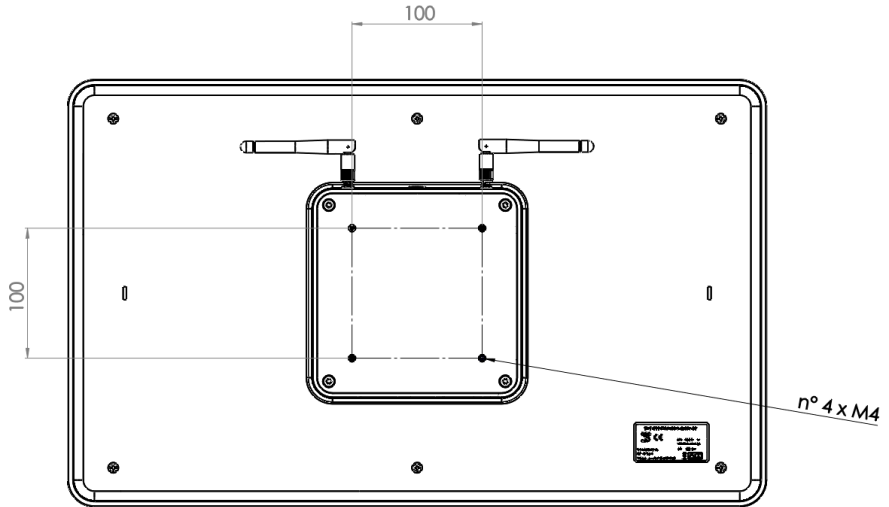
To install the device properly on the destination machine, follow the procedure below:

- 1 Make sure the electric connection on the destination machine is off and the electric power supply is disconnected from the device;
- 2 Proceed to fasten the device to the destination support (Option 1 or Option 2), using the relative screws in points **(A)**, indicated in the figure;
- 3 Proceed to connect the electric power supply to the device. Once inserted, turn the connector clockwise in order to lock it in place;
- 4 Proceed to electrically connect the destination machine.

**Option 1** – Device fastening on wall or similar.



**Option 2** – Device fastening on the standard VESA fixing support.



## 7.2 Versions available

The **SYS-B68-FXV** device is available in different versions that integrate various configurations of the single board “B68”.

Below the table with the main configurations of the device:

<b>SYS-B68-FXV-BB00-2XX0-C3</b>	SB68-BB01-3101-C3 (N3350, 4GB, TPM)
<b>SYS-B68-FXV-7B00-2XX0-C3</b>	SB68-7B01-3101-C3 (E3940, 4GB, TPM)
<b>SYS-B68-FXV-AC00-2XX0-C3</b>	SB68-AC01-3101-C3 (J3455, 8GB, TPM)
<b>SYS-B68-FXV-XX00-20X0-C3</b>	No additional storage
<b>SYS-B68-FXV-XX00-21X0-C3</b>	32 GB additional storage
<b>SYS-B68-FXV-XX00-22X0-C3</b>	128 GB additional storage
<b>SYS-B68-FXV-XX00-23X0-C3</b>	512 GB additional storage
<b>SYS-B68-FXV-XX00-2X00-C3</b>	NO Operative System
<b>SYS-B68-FXV-XX00-2X10-C3</b>	Windows 10 Operative System
<b>SYS-B68-FXV-XX00-2X20-C3</b>	Linux Operative System
<b>KTPW-FXV-001.00</b>	Italian Power Cord
<b>KTPW-FXV-002.00</b>	USA Power Cord
<b>KTPW-FXV-003.00</b>	UK Power Cord
<b>KTPW-FXV-004.00</b>	Japan Power Cord
<b>KTMC-FXV-BASE.00</b>	Optional Table support base

## 8 Maintenance

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User should clean the product with a dry cloth when necessary, based on his visual inspection.



**Caution!** Disconnect the device from any power source before cleaning.



**Warning!** The enclosure of the device must be cleaned only with a dry cloth.

After cleaning, the user should check that the product is still correctly installed.

## 9 Waste disposal

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Electrical equipment no longer in use must not be thrown away with normal municipal waste. The substances and materials contained must be disposed of separately in an appropriate manner. The device must be disposed correctly as it is a waste of electric and electronic equipment (WEEE).