

PANEL-PC-L-.....:..

Quick Installation Guide

SKU/Order No. : SA-PL-.....

Address of the manufacturer:

SALZ Automation GmbH

Max-Planck-Str. 64

32107 Bad Salzufflen, Germany

Email: support@salz-automation.com



Overview

Panel-PC-L-..... is an industrial panel pc with a capacitive TFT LCD touchscreen and pre-installed Micro-Browser. Power Supply 24V DC.

Function:

TFT LCD WebPanel, 24V DC power supply, IP65 compact fanless housing, Wi-fi etc.

Package Content:

- Industrial Panel PC
- Power adapter x1
- Power connection cable x1
- Installation accessories x1
- Quick Installation Guide x1

1. Nomenclature

Display Size: 10.1"/ 10.4"/ 11.6"/ 12.0"/ 12.1"/ 13.3"/ 15"/ 15.6"/ 17"/ 17.3"/ 18.5"/ 19.0"/ 19.1"/ 21.5"/ 23.8"	Touch: C- Capacitive R-Resistive N- No Touch
Storage: 64GB, 128Gb, 256GB, 512GB, 1024GB (1TB)	Aspect Ratio: 01- 4:3 02-16:9
RAM: 04GB, 08GB, 16GB, 32GB	

Panel-PC - L - A53 - 04 - 64 - 01 - 00 - 00

Operating System: L- Linux	Processors: A53- RK3568 processor, Quad-core/4-Wire 2.0 GHz CPU A55- RK3588 Quad-core Cortex-A76 + Quad-core Cortex-A55
-------------------------------	---

Legend of Configuration for the Panel-PC-L-.....:..:

No.	Component	Description
1	Power Terminal	Coaxial power connector (5,5 x 2,5 mm): 12 ... 36 VDC Screw terminal: 12 ... 36 VDC
2	RJ45 Ethernet	1x RJ-45 Gigabit Ethernet (2 in Windows PC)
3	HDMI	Digital interface for a monitor with audio output.
4	Chassis Ground	Screw to fix the shielding ground connection.
5	SIM / SD Card	1xSIM card slot, 1xTF/SD card slot
6	Power Button	Button for PC power function.
7	Audio	1x3.5mm Audio output interface
8	Serial Ports	1x RS-232 DB-9
9	USB Ports	(A/L)- 1x USB 3.0 Typ A, 1x USB 2.0 (USB/OTG) (W)- 2x USB 3.0 Typ A, 2x USB 2.0 (USB/OTG)
10	Phoenix Plug	12 Pin-Screw Connector: 1x RS-485, 1x RS-232, 5x GPIO
11	Bluetooth	1x Bluetooth 5.0
12	VGA	1x VGA (only in W)

2. Wiring Power Input

The Panel-PC-L-..... offers two options for power supply:

1. 12-pin terminal block for 12–36 VDC,
2. Socket for 12–36 VDC via external power adapter (coaxial)



Connecting the Power:

12-pin Terminal Block (12–36 VDC):

- Connect the "+" wire from your DC power source to the "12–36V" input on the terminal block, and the "-" wire to the "GND" input.
- To avoid potential differences and possible damage to the USB ports, never connect the Panel PC to multiple devices with different ground potentials.



et for 12–36 VDC (External Power Adapter):

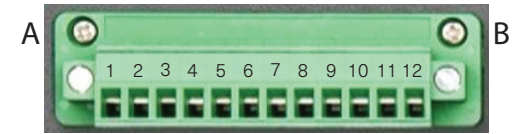
For connection to 230 VAC mains, use the external power adapter available as an accessory. Only use the recommended power adapter. This is not included in the standard delivery.



Caution:

Never use both power connections at the same time. Doing so may cause damage to the device.

3. 12-pin Terminal Block

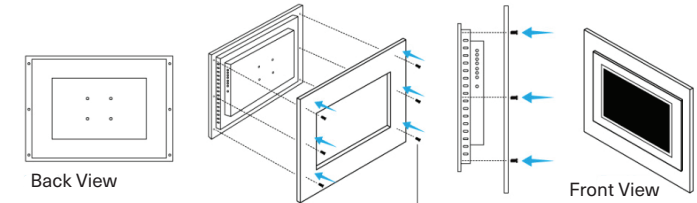


Pin	Description
1	12–36 V DC (Power Supply)
2	GND (Power Supply)
3	GND
4	RS232 TX
5	RS232 RX
6	RS485 A
7	RS485 B
8	IO0 (TTL)
9	IO1 (TTL)
10	IO2 (TTL)
11	IO3 (TTL)
12	IO4 (TTL)

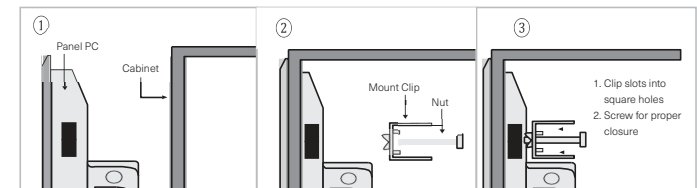
4. Mounting

Panel Mounting

- **VESA Mounting:** Attach the panel PC to a wall, stand, or arm using standard VESA mounts (100 x 100 mm and/or 75 x 75 mm).



- **Other Common Methods:** Depending on your model, options may also include wall mounting, desktop mounting, open frame, cantilever, or DIN rail installation



Use a rigid mounting frame and follow the cutout dimensions from the data sheet. Secure the monitor with all supplied brackets, seals, and screws (tightening torque: 0.294–0.441 Nm). Ensure at least 3 cm clearance on all sides for ventilation, and keep the ambient temperature between -10°C and 60°C

5. Configuration

Following provides step-by-step instructions to help you connect and access your Linux Panel PC for the first time. It covers both network and serial port access methods. Please ensure all necessary cables and your panel PC are ready before starting:

1. Initial Setup

- Connect Power: Attach the power cable to your panel PC.
- Connect Ethernet: Plug one end of an Ethernet cable into the panel PC and the other into your network switch/router.
 - Alternatively, connect the Ethernet cable directly between your laptop/PC and the panel PC for direct access. (Static IP advised).

2. Obtaining the Panel PC's IP Address

- Access the Panel PC's Terminal:
 - Connect an external keyboard.
- Display Network Information:
 - Type the following command to view assigned IP addresses:


```
ip a or ip address
```
 - Look for the IP address under the Ethernet interface (commonly eth0 or enp...), such as 192.168.1.100.



Note: Your panel PC must obtain an IP address from your network's DHCP server. If you connect directly to your laptop, you may need to set static IPs on both devices in the same subnet. Use the following command to set static IP address for the panel PC using its terminal (being a root user is mandatory for this step):

```
ip addr add <not used IP address of your network>/<your netmask> dev eth0
```

3. Remotely Accessing the Panel PC via SSH

- Ensure Both Devices Are on the Same Network:
 - Both your laptop and the panel PC must be connected to the same LAN.
 - For direct connection, static IP configuration may be needed.
- Open Terminal on Your Laptop/PC.
- SSH Into the Panel PC:
 - Replace <ip address> with your panel PC's actual IP:


```
ssh salz@<ip address>
```
 - When prompted, enter the password.
 - Default password: The serial number printed on your panel PC label (starts with SC...).

4. Accessing the Panel PC as Root via Serial Port

- Locate the Serial Port on the Panel PC (RS232).
- Connect Your Laptop/PC to the Panel PC's Serial Port:
 - Use the appropriate RS232 serial cable or adapter.
- Configure Serial Communication on Your Laptop/PC:
 - Use a serial terminal software (e.g., PuTTY, Tera Term, minicom).
 - Serial settings:
 - **Baud rate: 115200**
 - **Data bits: 8**
 - **Parity: None**
 - **Stop bits: 1**
 - **Flow control: None**
- Open Serial Connection:
 - You should see a login prompt in your terminal program. If not, just reboot.
- Log in as Root:
 - Type 'root' when asked for username.
 - Password: The serial number, reversed (e.g., if serial is SC123456, password is 654321CS).
 - Alternatively, you can log in as 'salz' and then switch to root (su - ing super user root):


```
su -
```

(then provide the root password as above).

5. Important Notes

- Do not disclose your panel PC's serial/password information to unauthorized individuals.
- Change default passwords after initial configuration for security.
- The standard user is salz (for regular operations and can be accessed by serial as well).
- The root account is for system administration and should be used only when necessary.
- ssh-ing as 'root' is prohibited.



By following these steps, you will be able to connect, configure, and securely access your Linux panel PC for setup and administration tasks. If you encounter issues, contact technical support.

6. Environmental limits

Operating Temperature	-10 ... 60 °C
Storage Temperature	-20 ... 75 °C
Ambient relative humidity	10 ... 80% @ 40 °C (non condensing)



Ensure all local and national electrical standards are followed during installation

7. Safety Instructions

Power Supply:

- Use a DC output (12–32 VDC) that meets SELV (Safety Extra-Low Voltage) requirements. If using multiple power sources, ensure they share the same voltage.

Powering On:

- Connect and power on the device properly. If the display does not start within 5 seconds, turn it off and check wiring.

Overvoltage Protection:

- Use proper isolation between DC power sources and the main supply to prevent hazards.

Emergency Stop:

- Install a fixed emergency stop (NOT-AUS) in every system as per safety guidelines.

Power Supply Conditions:

- Only use non-inductive loads and ensure the power supply can deliver enough current for the monitor.

Wiring:

- Keep cable lengths short (max. 500m shielded, 300m unshielded).
- Use surge protection if cables are exposed to lightning or overvoltage.
- Separate AC and DC power cables.
- Add a resistor and capacitor in parallel between ground and enclosure to prevent static and high-frequency losses (typical: 1M Ω and 4,700pF)

If you have any questions, need technical support, or encounter any issues with your device, please visit our website for detailed resources and assistance.

You can reach our support team directly through the "Contact Us" page, where you'll find our email address, phone number, and a contact form.

We are committed to providing prompt and helpful service—don't hesitate to get in touch if you need any help.