USER MANUAL

# Thinvent® Neo R/4 Mini PC

R-r5_7-32-S128-19_3-X-W_OS-0



Edition November 2026

Serial number: _____

Thinvent Technologies Private Limited · www.thinvent.in

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## 1. BEFORE YOU START

The Neo R/4 is Thinvent's steel mini PC for transport, banking, hospitality and healthcare. It takes a Mini-ITX or Thin Mini-ITX board and holds an M.2 SSD and a 2.5 inch drive, and runs Windows or Linux.

- Keep the vents clear, and keep the computer away from water and direct sunlight.
- Use only the power adapter supplied with the mini PC. Another adapter can damage it and affects the warranty.
- Do not cover the ventilation slots or block the air vents. Never run the mini PC with the cover or a side panel removed.
- When the mini PC is plugged in, power reaches the system board. Unplug the power cable before you open the mini PC.
- Be properly grounded when you touch a component, and avoid contact with pins, leads and circuitry.
- Keep the adapter wires undamaged. A damaged wire can cause a short circuit.
- Do not let the power adapter touch your skin or a soft surface while the mini PC runs.
- The mini PC contains a lithium coin cell battery. Do not take it apart, crush, puncture or short it, put it in water or fire, or expose it to temperatures above 60 °C. Do not recharge it. Return used batteries to Thinvent or its authorised partners, not to the household waste.
- Change BIOS settings only with the help of trained service personnel. Wrong settings cause instability or boot failure.
- Contact Thinvent support before you upgrade memory or storage. Some models have a fixed configuration.
- Do not remove or tamper with the warranty seal. Repair or modification by the customer or an unauthorised third party is outside the warranty.

Drivers, other files for this computer and the latest edition of this manual are on the Thinvent Support Downloads page: www.thinvent.in/support/downloads. Enter the serial number or the order number of your computer.

## 2. WHAT IS IN THE BOX

- Thinvent® Neo R/4 Mini PC
- Power adapter

## 3. SPECIFICATIONS

| | |
|---|---|
| **Processing** | |
| Generation | 7000 Series |
| Series | Ryzen 5 |
| Processor Brand | AMD |
| Processor Model | 7430U |
| Cores | 6 |
| Max Frequency | 4.3 GHz |
| Cache | 16 MB |
| Main Memory | 32 GB |
| SSD Storage | 128 GB |
| **Display** | |
| HDMI | 1 |
| VGA | 1 |
| **Audio** | |
| Speaker Out | 1 |
| Mic In | 1 |
| **Connectivity** | |
| USB 3.2 Gen 1 | 2 |
| USB 2.0 | 2 |
| **Networking** | |
| Ethernet | 1000 Mbps |
| **Power** | |
| DC Voltage | 19 Volts |
| DC Current | 3 Amps |
| Power Input | 100~240 Volts AC, 50~60 Hz, 1.5 Amps maximum |
| Cable Length | 2 Metre |

### Environmental

| | |
|---|---|
| Operating Temperature | 0°C ~ 40°C |
| Operating Humidity | 20% ~ 80% RH, non condensing |
| Certifications | BIS, RoHS, ISO |

### Physical

| | |
|---|---|
| Form Factor | Mini PC |
| Dimensions | 198mm × 200mm × 73mm |
| Packing Dimensions | 335mm × 240mm × 110mm |
| Housing Material | Steel |
| Housing Finish | Powder Coated |
| Housing Colour | Black |
| Net and Gross Weight | 1.17kg, 1.58kg |

### Operating System

| | |
|---|---|
| Operating System | Without OS |

## 4. PORTS AND CONTROLS

### Front

From left to right:

| # | Port | Description |
|---|---|---|
| 1 | Power button | Switches the mini PC on or off. Press it gently to switch on. Hold it for at least 4 seconds to force a switch off when the mini PC does not respond. |

### Rear

From left to right, seen from the back:

| # | Port | Description |
|---|---|---|
| 1 | DC-IN | DC power jack, 19 V |
| 2 | HDMI | HDMI 1.4 port |
| 3 | VGA | VGA port. The position can be fitted with a COM port or a DisplayPort instead |
| 4 | USB 2.0 | Stacked USB 2.0 ports |
| 5 | RJ45 | Ethernet port, Realtek 8111M, 100 Mbps and 1000 Mbps |
| 6 | USB 3.2 Gen1 | Stacked USB 3.2 Gen1 ports |
| 7 | Audio 1 | Pink audio jack |
| 8 | Audio 2 | Green audio jack |

## 5. SETTING UP

### Connect and switch on

1. Plug the power adapter into the DC Power In jack on the rear panel.
2. Plug the power adapter into a 100 to 240 V AC power source.
3. Connect a monitor with an HDMI cable to the HDMI port, or with a VGA cable to the VGA port. To use two monitors, connect one to each port.
4. Connect a USB keyboard and mouse to any of the USB ports. A USB dongle for a wireless keyboard and mouse also works.
5. Connect an Ethernet cable to the LAN port.
6. Press the Power button gently.

## 6. USING THE COMPUTER

### Switch the mini PC on and off

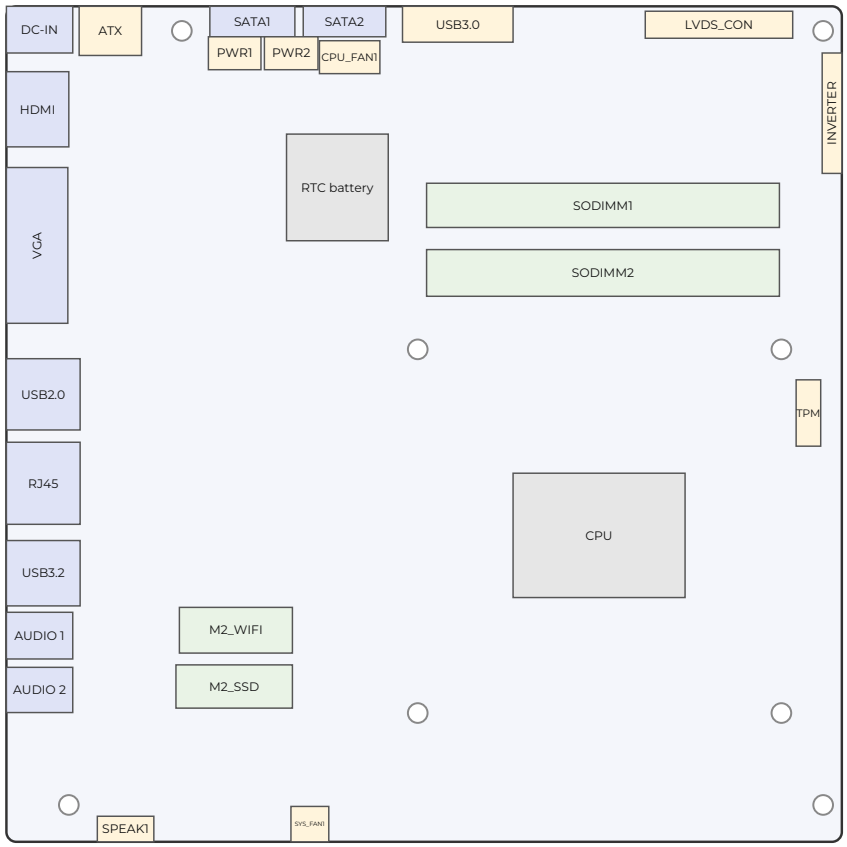
1. Press the Power button gently to switch on.
2. To switch off in Windows, select the Start menu, select the Power icon, then select Shut down.
3. If the mini PC does not respond, hold the Power button for at least 4 seconds until it switches off.

## 7. OPERATING SYSTEM

This computer comes with Without OS.

1. Switch the computer on. Windows starts its setup on the first start.
2. Pick your country, keyboard layout and network, then sign in or create a local account.
3. Install the drivers in the Drivers chapter of this manual if Device Manager lists a device without a driver.

## 8. INSIDE THE COMPUTER: THE MOTHERBOARD




170 mm × 170 mm

Component side of the board. Positions are approximate.

| Label | Connector or component |
|---|---|
| CPU | AMD Ryzen 5 7430U |
| SODIMM1 | DDR4 SO-DIMM slot |
| SODIMM2 | DDR4 SO-DIMM slot |
| RTC battery | RTC battery holder with its coin cell |
| SATA1 | SATA 6 Gb/s connector |
| SATA2 | SATA 6 Gb/s connector |
| PWR1 | SATA_PWR connector, 4 pins, for the first SATA drive |
| PWR2 | SATA_PWR connector, 4 pins, for the second SATA drive |
| CPU_FAN1 | CPU fan header, 1 x 4 pins, smart fan |
| USB3.0 | USB 3.0 header, 2 x 10 pins |
| LVDS_CON | LVDS screen header, 2 x 15 pins |
| INVERTER | Backlight header, 1 x 6 pins |
| TPM | TPM header, 2 × 7 pins |
| M2_WIFI | M.2 Key-E socket for a 2230 wireless module |
| M2_SSD | M.2 Key-M socket for a 2242 or 2280 SATA or PCIe 3.0 SSD |
| SPEAK1 | Speaker header, 1 x 4 pins |
| SYS_FAN1 | System fan header, 1 x 4 pins, smart fan |
| ATX | 4-pin ATX power connector, fitted in place of the DC jack |
| DC-IN | DC power jack, 19 V |
| HDMI | HDMI 1.4 port |
| VGA | VGA port |
| USB2.0 | Stacked USB 2.0 ports |
| RJ45 | RJ45 Ethernet port |
| USB3.2 | Stacked USB 3.2 Gen1 ports |
| AUDIO 1 | Pink 3.5 mm audio jack |
| AUDIO 2 | Green 3.5 mm audio jack |

## 9. JUMPERS AND SWITCHES

**LCD_VOL_SEL: Supply voltage of the LVDS screen**

| Setting | Function |
|---|---|
| 3.3 V | Screen supply 3.3 V |
| 5 V | Screen supply 5 V (default) |
| 12 V | Screen supply 12 V |

**INV_VOL_SEL: Backlight voltage**

| Setting | Function |
|---|---|
| 12 V | Backlight supply 12 V (default) |
| 19 V | Backlight supply 19 V |

## 10. BIOS SETUP

Open the Save & Exit menu to save the settings and restart.

**Updating the BIOS**

> Keep the power connected during a BIOS update. A power cut during the update leaves the board unable to start.

1. The Thinvent Support Downloads page does not have a BIOS file for this board.
2. Contact Thinvent support with the serial number of your computer and ask for a BIOS file. The contact details are in the Support section of this manual.
3. Thinvent support sends the BIOS file for your board with its instructions. Follow those instructions.
4. Keep the power adapter connected until the update finishes.

## 11. DRIVERS

Install the drivers in this order. Each one is on the Support Downloads page.

| # | Driver | Version |
|---|---|---|
| 1 | AMD Ryzen chipset driver for Windows 10 and 11 | 8.08.12.551 |

**Other files for this computer**

These files are on the Support Downloads page, www.thinvent.in/support/downloads.

| File | Kind | Version |
|---|---|---|
| Neo user manual | manual | 1 |

## 12. CARE

- Keep the mini PC away from excessive moisture, direct sunlight and extremes of heat and cold.
- Keep liquids away from the mini PC.
- Clean the air vents on all vented sides now and then. Unplug the mini PC first, because lint and dust block the vents and limit the airflow.
- Use the mini PC on a hard, flat surface. Do not place it on a lap, a pillow, a rug or clothing.
- Do not stack other computers on top of the mini PC.
- If you run the mini PC inside a separate enclosure, give the enclosure intake and exhaust ventilation.

## 13. TROUBLESHOOTING

**The mini PC does not switch on**

1. Check that the power adapter is firmly plugged into the DC Power In jack and into the wall socket.
2. Check that the socket supplies the correct voltage (100 to 240 V AC).
3. Use only the adapter that came with the mini PC.
4. Press the Power button gently.

**The monitor stays blank after you connect the mini PC**

1. Check that the monitor is switched on and set to the input you connected.
2. Check that the HDMI or VGA cable is firmly connected at both ends.
3. Try the other video port, or another monitor.

**The mini PC runs slowly**

1. Close applications you do not need.
2. Put the mini PC where the air moves freely and clean dust from the vents.
3. Check that the mini PC is not overheating.

**The headphones do not work in the Mic and Speaker jacks**

1. Connect the headphones through a converter, or use USB headphones.

## 14. SUPPORT

| | |
|---|---|
| **Support Downloads** | www.thinvent.in/support/downloads |
| **Email** | support@thinvent.in |
| **Phone** | +91-11-411-71494 |
| **WhatsApp** | +91 9990344247 |

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