PANOPTICUM SMART VISION

Panopticum OS

Installing it on a trunk: a guide for installers

Document	**Installation guide, version 1.0**
System version	**Panopticum OS 1.0 Beta**
Date	**11 August 2026**
Take with you	**A USB stick of 2 GB or more, a monitor with HDMI, a keyboard, the site key**
How long it takes	**Writing the stick: 5 minutes; installing on site: 3 to 5 minutes**
Contents	**1: the image. 2: download. 3: write the stick. 4: install. 5: give it internet. 6: check. 7: installing with one command**

✓ The essentials

A **trunk** is a device at the site: an HDMI stick or a mini PC. It finds the cameras on the local network by itself and passes them out to us. **Panopticum OS** is the system installed on it.

It can be installed in two ways: by booting from a USB stick (sections 1 to 6) or with one command on top of an already installed Debian or Ubuntu (section 7). The second is handy for a mini PC that arrives with a system already on it.

> **What to know before you go**
>
> - **The image is universal: one for all sites.** The site key is entered on site, so the stick needs to be written only once and carried with you.
> - **The trunk needs only an outgoing connection.** No public address, no port forwarding, no settings on the client's router.
> - **Installation erases the chosen disk entirely**, together with any preinstalled Windows. The installer always excludes the stick you booted from.
> - **A keyboard is needed only during installation.** After that the box works without a monitor or keyboard.

The trunk's own screen and the Trunks section are in Russian for now: their menu items and buttons are given here in English translation.

1 Get the Panopticum OS image

The image is **universal**: one for all sites. The site key is entered on site: with a menu item on the device's screen or from a phone through the setup page. The stick needs to be written only once and carried with you.

If the box is not taken by an installer but sent to the client, it is easier to **bake the key into the image**: in the Trunks section, press "Issue key": the image is built for this site and links itself to the client, and nothing has to be entered on site. The build runs **on the server** and takes about a quarter of an hour.

2 Download the image

Ready images are in the **Trunks** → **Images** section: name, size, build date and the "Download" button.

The image is about 800 MB. If the download breaks off, it can be resumed; there is no need to start again.

3 Write it to a USB stick with Rufus

You need a stick of 2 GB or more: **everything on it will be erased**.

1. **Choose the device**
   Open Rufus and choose the stick in the "Device" field.
2. **Point to the image**
   "Boot selection" → "Disk or ISO image" → "SELECT" → the downloaded file.
3. **Partition scheme**
   "Partition scheme": **GPT**, "Target system": **UEFI**.
4. **Write**
   "START". If Rufus asks about the write mode, choose **"Write in DD Image mode"**.

The image carries both boot loaders, 64-bit and 32-bit. This is not overcaution: Atom sticks have a 64-bit processor but often 32-bit firmware, and an ordinary image does not boot on them at all, without any message on the screen.

4 Install Panopticum OS

> **What gets erased**
>
> Installation erases the chosen disk entirely, together with any preinstalled Windows. The installer always leaves the stick you booted from off the list: it cannot be erased even on purpose.

1. **Connect**
   Insert the stick into the device's USB port, connect HDMI to the monitor, the keyboard and the power.
2. **Choose the first boot menu item**
   In the boot menu, choose **installation and setup**. In 10 to 15 seconds, the blue **PANOPTICUM OS** screen with its menu appears.
3. **Choose the disk**
   Item **1: automatic installation**, if the internal storage has one disk. If there are several disks, the automatic installation refuses and offers a choice: item **2** shows a list with the model and size, and marks separately the disks where another system was found.
4. **Confirm**
   Erasing has to be confirmed separately with the Y key: the installation cannot be started by pressing one key.

5 **Wait**
The progress of the installation is shown **in the same window**: a bar, the percentage and what is being done now. It takes 3 to 5 minutes.

6 **Remove the stick**
When it is done, the device switches itself off after 30 seconds. Remove the stick and switch the power on.

A keyboard is needed only during installation. If there is none and the internal storage has one disk, section 7 will do too: installing with one command.

5 Give the trunk internet

The trunk needs a connection to the outside: **outgoing only**. No public address, no port forwarding and no settings on the client's router are needed: this is the very reason the trunk exists.

Method	What to do	When it suits
Cable	A USB-to-Ethernet adapter into the site's router. Nothing needs to be set up; the router gives the address.	A fixed site with a socket and the router nearby.
The site's Wi-Fi	Right during installation: the "Set up Wi-Fi" item in the on-screen menu: the trunk shows a list of networks nearby. Later: with the "Wi-Fi" button in the trunk card.	The site has Wi-Fi and its password is known.
USB 4G modem	Insert the modem into a free port. The SIM must have **no PIN code**: remove it beforehand in a phone.	A site without wired internet, and a delivery van.
A phone as a hotspot	Share the internet from a phone and connect the trunk to that network through the setup mode (below).	A one-off setup on site until a modem is fitted.

If there is no network at all

After a minute without internet, the trunk raises **its own access point** named like `Panopticum-XXXX`: the last four characters are unique to each device. **Each box has its own password**, eight digits: it is shown on the device's screen and, for boxes already linked, in the trunk card. Connect to the access point from a phone, and the setup page opens by itself: there you choose the site's network, enter its password and, if needed, the site key. No laptop is needed.

The access point goes off by itself as soon as the trunk gets online, and comes back if the connection is lost.

How much bandwidth is needed: about 800 kbit/s per camera with the light profile. The trunk chooses the profile itself for the connection you specify in the site settings.

6 Make sure everything is up

The trunk appears in the list of the Trunks section by itself, within a minute of being switched on. Then: open its card → “Scan network” → in a minute or two the card shows all the cameras of the site → “Stream” on the ones you need.

> **If the list is still empty after 5 minutes**
>
> Almost always the problem is the internet, not the trunk: check that the SIM has no PIN code, or check the Wi-Fi password.

7 Or: with one command on top of a ready system

If the device already runs **Debian 12** or **Ubuntu 22.04** or later, no stick is needed at all. Open a terminal on it and run, with the site key:

```
curl -fsSL https://panopticum-smart-vision.ru/trunk.sh | sudo bash -s -- KEY
```

The script installs everything needed, sets up the services and waits for the trunk to come online: at the end it says plainly whether it worked. It does not touch partitions, the boot loader or data; on a machine managed by NetworkManager it does not touch the network settings either.

This is handy for bringing up a mini PC that arrives with a system already installed, and for restoring a trunk without a trip with a stick. To remove it: the same command with `-- --uninstall`.
