



CENTAURI

Device Management & Deployment (DMD) User Manual

V5+ | August 2023



LASER SAFETY

LASER SAFETY

IMPORTANT INFORMATION

WHAT YOU SHOULD KNOW

This information is provided provided in compliance with global laser safety standard IEC/EN 6082501-2014.

In addition, there are labels affixed to CENTAURI devices, which help explain and warn users of the potential for exposure to invisible laser radiation.

	 WARNING	
CLASS 3B LASER PRODUCT		
AVOID EXPOSURE TO BEAM		
Emitted Wavelength 808 nm		
Max. output power: < 375 mW (0.375 watt) Frequency: 5-15 Hz On-time: 100ms Duty Cycle: 50% Output: Pulse Wave (PW) Laser Classification: Class 3B, "Warning - Invisible Laser Radiation"		
Emitted Wavelength 1550 nm		
Average power: 235 mW (0.235 watt) Output: Continuous Wave Laser Classification: Class 3B, "Warning - Invisible Laser Radiation"		

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure

Laser hazards

Eye injury from beam

Do not look into the aperture of the device. Do not use binoculars or aiming telescopes to view the direct or reflected beam. The Nominal Ocular Hazard Distance (NOHD) for this device is 33 m / 108 ft. At this distance the 1550 nm beam diameter is 0.7 cm / 0.28 in. The Extended Nominal Ocular Hazard Distance (ENOHD) for this device is 150 m / 492 ft from in front of the laser aperture. At this distance the 1550 nm beam diameter is 3.1 cm / 1.22 in.

Skin heating & materials damage

Do not point laser beam at skin or materials at close range. Higher-powered Class 3B lasers may cause heat damage or burns.

Safe use guidance

This is a medium-powered laser that should be used with caution. Always be aware of the beam's location.

Not a laser pointer

This device emits invisible laser radiation and is intended for outdoor use as a point-to-point communications device. This laser is not intended for pointing applications.

Clear Line of Sight

Make sure there are no objects in the path of the laser between two devices in a laser communications link, or within the laser hazard zone in front of any device, that could reflect or deflect the laser.

Device Installation

Install in a secure, access-controlled area. Place additional laser hazard warning signs in visible locations near the device. Do not place device inside any other enclosure. Do not cover device with fabric or other materials. Do not remove warning labels from device. Do not attempt to service the device. Doing so may result in exposure to laser radiation and void the product warranty.

Laser Safety Eyewear

Laser safety eyewear is suggested for 3B lasers above roughly 50 milliwatts. We recommend operators wear laser safety eyewear during installation of CENTAURI. The optical density of the safety glasses should be rated 4+ at 808 nm and 3+ at 1550 nm.

LASER SAFETY

DEVICE WARNING LABELS

EXPLANATORY LABEL

Provides information about the laser classification of the device, and what kinds of laser radiation is emitted.

CENTAURI is a Class 3B laser product that emits invisible laser radiation during operation. CENTAURI fully complies with Laser Safety Standard IEC/EN 60825.1-2014

LASER PANEL AND APERTURE WARNING

Positioned on each side of the device, this label warns operators of possible exposure to invisible laser radiation if the device is opened. *

This label also identifies the location of the laser aperture. Operators should avoid exposure to the laser beam and stay out of the area in front of the aperture window, whenever the device is powered on.



* **Note:** There are no user-serviceable parts in CENTAURI. The device should never be opened except by Transcelestial or its authorised representatives. Doing so will void the device warranty and could result in exposure to invisible laser radiation.

DMD APP OVERVIEW

REQUIREMENTS

WHAT YOU NEED



Laptop

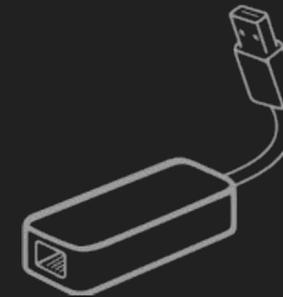
SUPPORTED BROWSERS
(up to last 3 versions)

Chrome | Firefox | Safari | Edge

SUPPORTED OS
(up to last 2 versions)

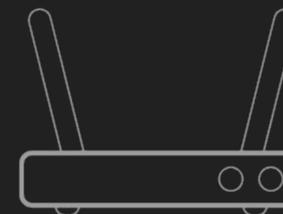
Windows | macOS | Linux *

* Any flavour, as long as it can run one of the supported browsers.



Network Adapter *(May be required)*

You need this if your device does not have an ethernet port and you want to connect via LAN.



Wifi Router *(Optional)*

Not necessary, but if you wish... see slides 5-6.

SETUP

WAYS TO CONNECT

VIA ETHERNET

There are several ways you may connect to CENTAURI to use the DMD application.

The illustrations here show the options for accessing CENTAURI via wired LAN cable.

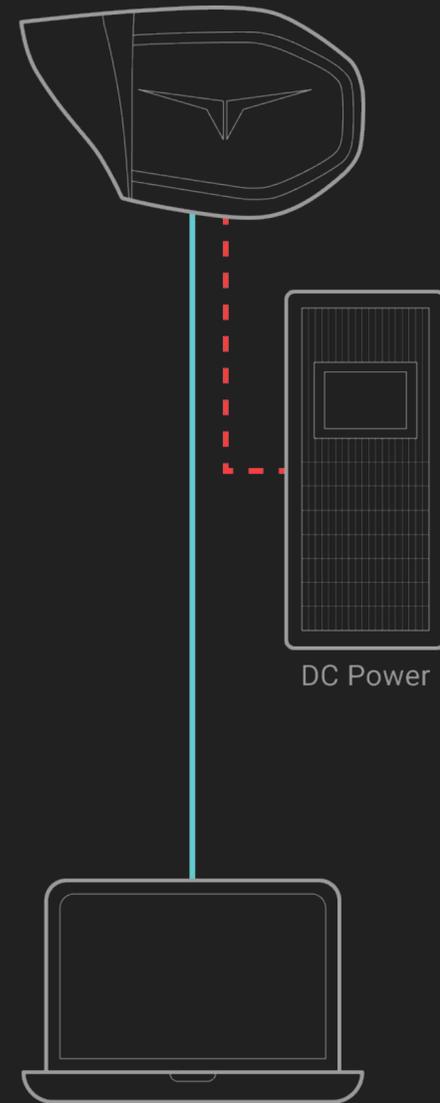
This is the preferred way to access the CENTAURI app for basic configuration and alignment.

REFERENCE

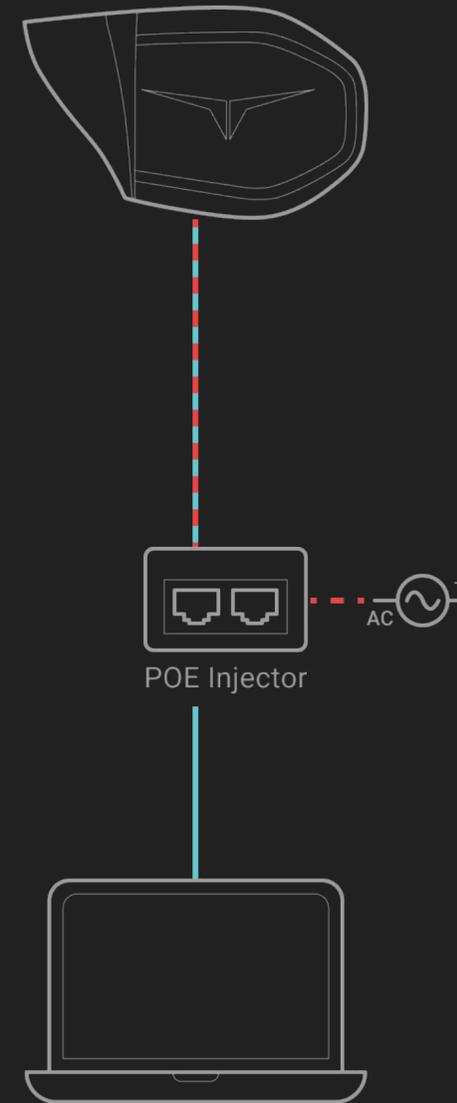
For more information, view our [product manual](#) (slide 19 - 21)

VIA ETHERNET

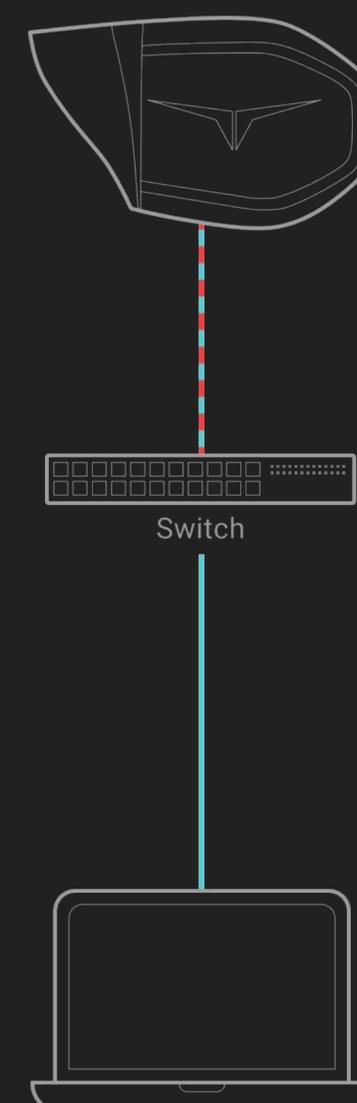
POWERED BY DC POWER



POWERED BY POE INJECTOR



POWERED BY SWITCH



Management ——— Power - - - - - POE - - - - -

SETUP

WAYS TO CONNECT

VIA WIFI

There are several ways you may connect to CENTAURI to use the DMD application

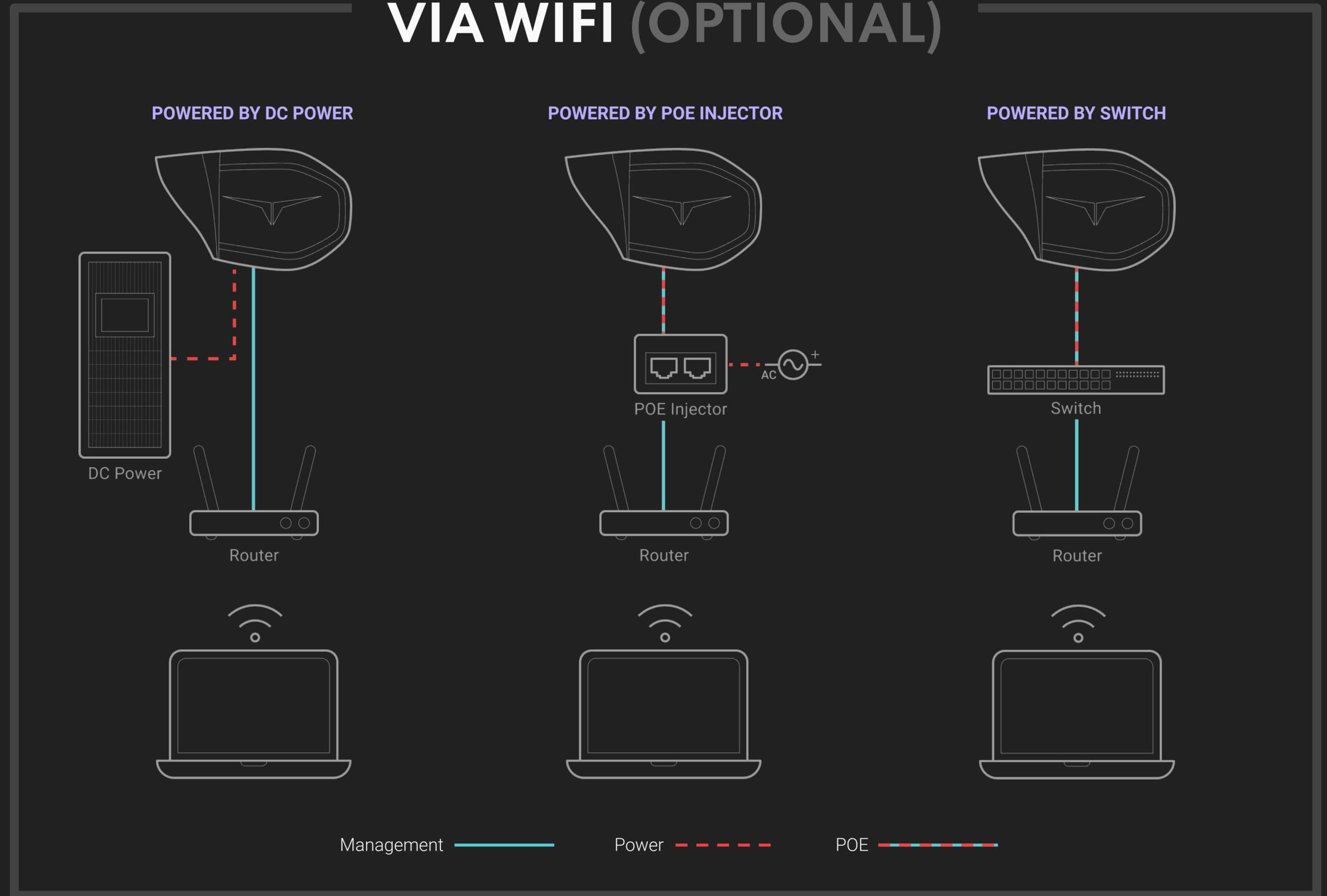
Using a Wifi router/switch to access and manage CENTAURI is not required.

“Direct” access to the device using wired LAN (as shown in the previous slide) will provide the best experience.

REFERENCE

For more information, view our [product manual](#) (slide 19 - 21)

VIA WIFI (OPTIONAL)



SETUP

NETWORK CONFIGURATION

Configure network settings **manually** before accessing the DMD app on your web browser.

VIA ETHERNET

STEP 1

Check setup

Check that devices are setup properly (refer to slide 7), powered on and all cables are connected securely.

STEP 2

Configure network settings

Go to the network settings manager for your OS, select the LAN port and configure the TCP/IP settings **manually** (not automatically). Use any IP address in the range from 10.11.12.14~254, and ensure that the gateway is set to 10.11.12.1

VIA WIFI

STEP 1

Check setup

Check that devices are setup properly (refer to slide 8), powered on and all cables are connected securely.

STEP 2

Connect to the Wifi network SSID

By default CENTAURI will obtain an IP address from your network's DHCP server. Access the Wifi network from your device, and use the management interface of the router/switch to find the IP address of the CENTAURI device. Access the DMD App using that IP address.

FACTORY DEFAULT CONFIGURATION

IP address: **10.11.12.13**

Gateway: **10.11.12.1**

Subnet mask: **255.255.255.0**

Subnet prefix length: **24**

How to change Network settings

Select the OS you're using

Windows [Windows 11](#) | [Windows 10](#) | [Windows 8.1 or 7](#)

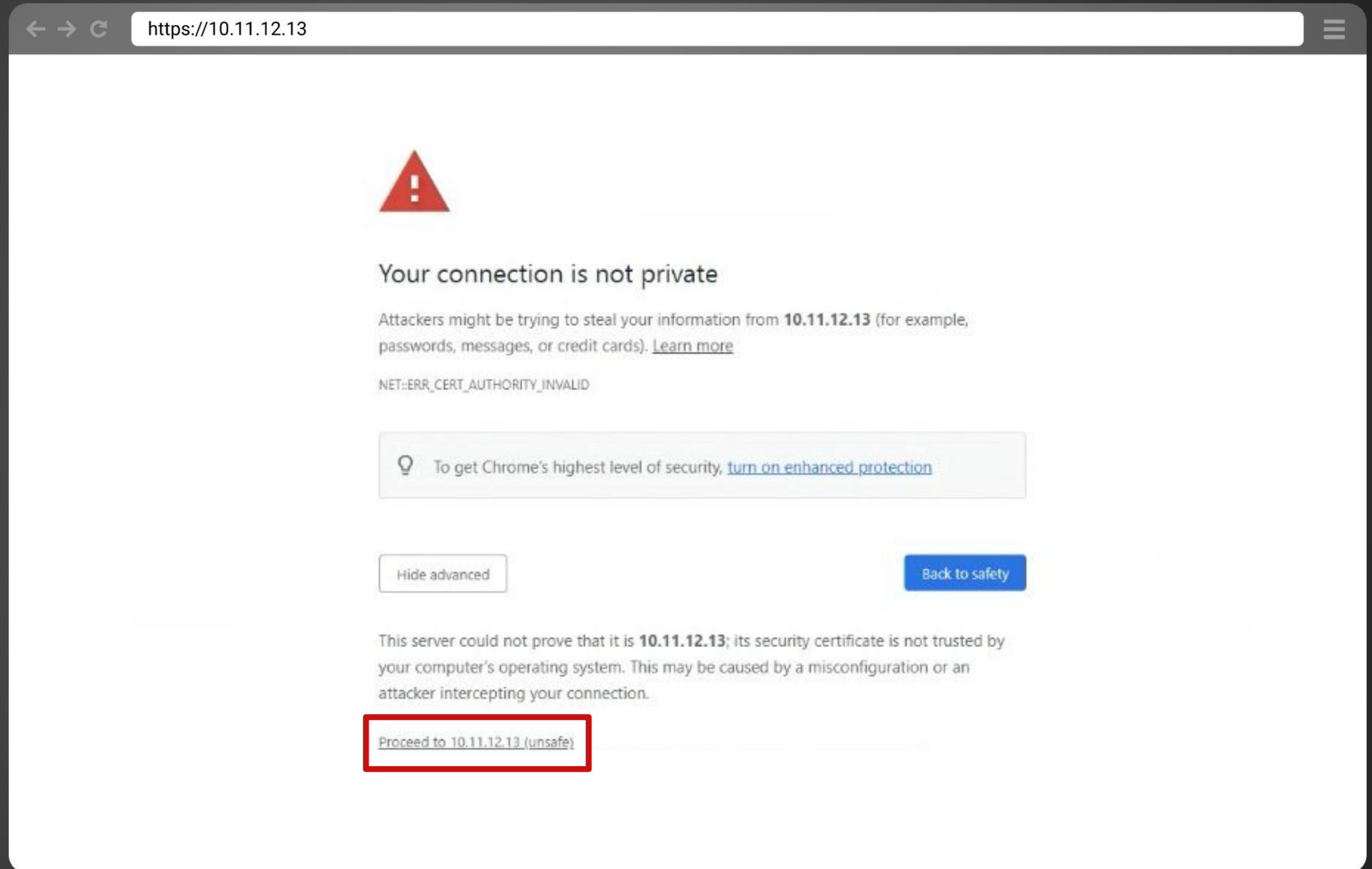
macOS [macOS Monterey 12](#) | [macOS Big Sur 11](#) | [macOS Catalina 10.15](#) | [macOS Mojave 10.14](#)

SETUP

LOGIN PAGE

After entering the URL for the device management application, you may see a screen that tells you that “your connection is not private.”

Follow the instructions for your specific web browser to proceed to the URL.



The screenshot shows a Chrome browser window with the address bar displaying `https://10.11.12.13`. The main content area features a red warning triangle icon with an exclamation mark. Below the icon, the text reads: "Your connection is not private". A sub-message states: "Attackers might be trying to steal your information from **10.11.12.13** (for example, passwords, messages, or credit cards). [Learn more](#)". The error code "NET::ERR_CERT_AUTHORITY_INVALID" is displayed. A light gray box contains a lightbulb icon and the text: "To get Chrome's highest level of security, [turn on enhanced protection](#)". At the bottom of the warning area, there are two buttons: "Hide advanced" and "Back to safety". Below these buttons, a paragraph explains: "This server could not prove that it is **10.11.12.13**; its security certificate is not trusted by your computer's operating system. This may be caused by a misconfiguration or an attacker intercepting your connection." At the very bottom, a button labeled "Proceed to 10.11.12.13 (unsafe)" is highlighted with a red rectangular border.

LOGIN

ACCESSING THE APP

STEP 1

Make sure to configure network settings on your OS before proceeding.
(See slide 6)

STEP 2

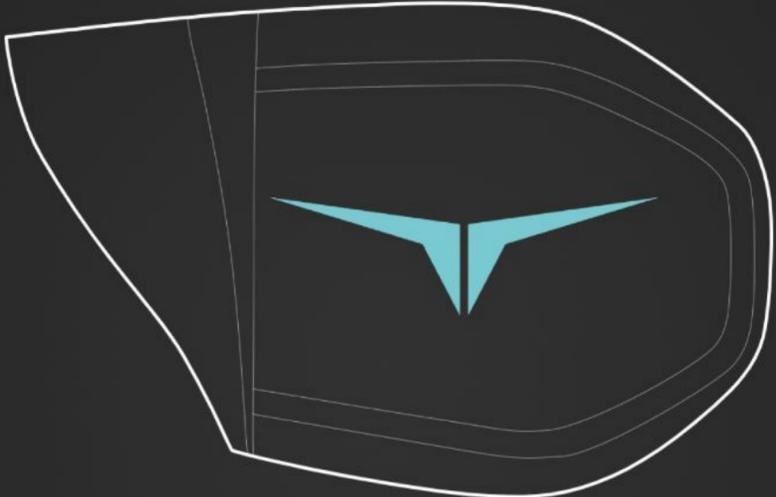
Open browser of choice and type in the URL for the CENTAURI management app.
(Default: <https://10.11.12.13>)

STEP 3

Default credentials
Username: admin
Password: admin

← → ↻ <https://10.11.12.13> ☰

TRANSCELESTIAL



CENTAURI
Laser-fast internet accessible to the entire world

Login

Username *

Password * 

LOGIN →

[Need help with the credentials?](#)

LOGIN

FORGOT CREDENTIALS?

METHOD 1

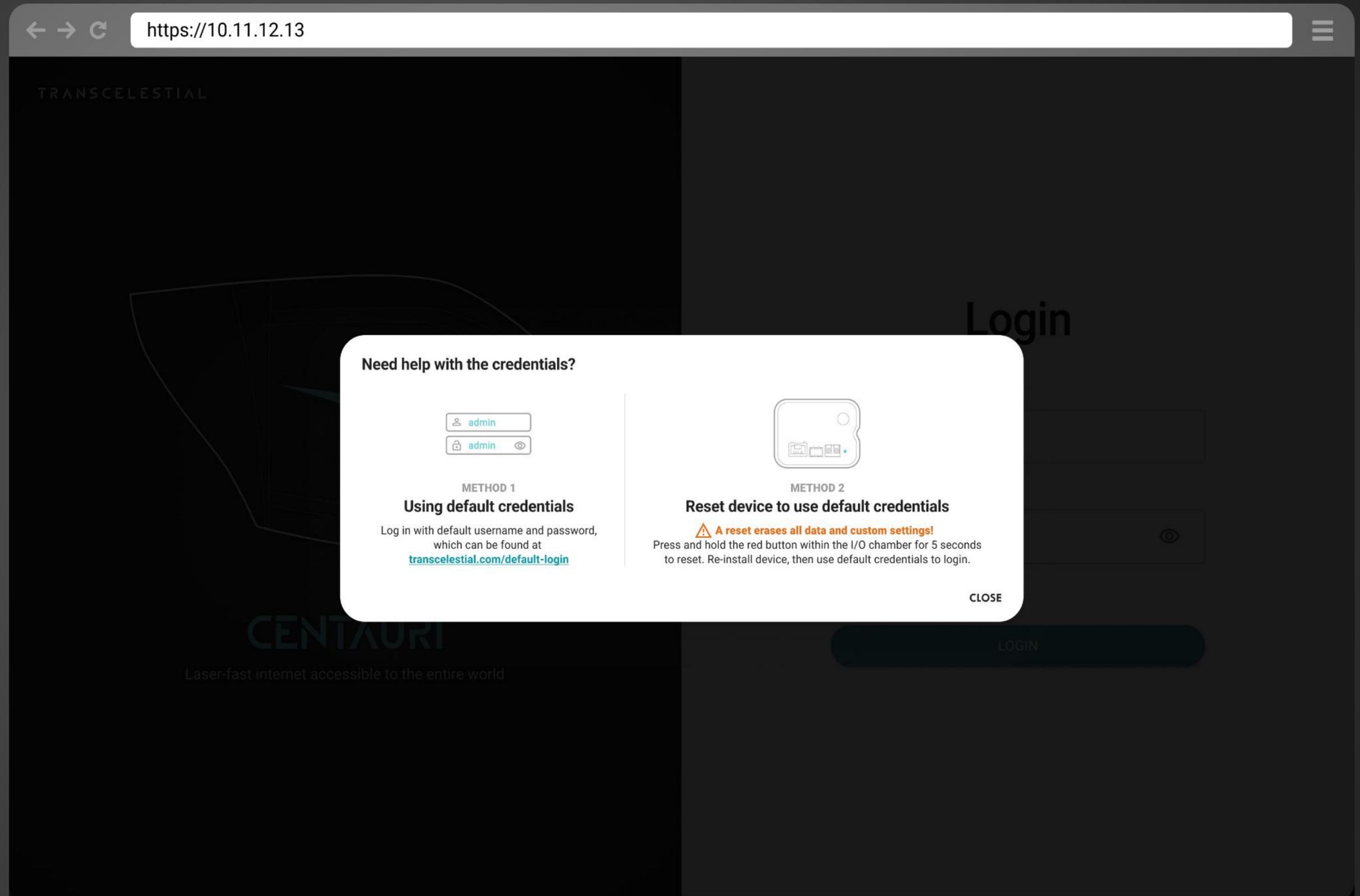
Try using default credentials

Try logging in with default username and password. See the previous slide.

METHOD 2

Perform a factory reset

See the next two slides for information on how to perform a factory reset. Once the reset is complete, you may log into the management app using the default credentials.

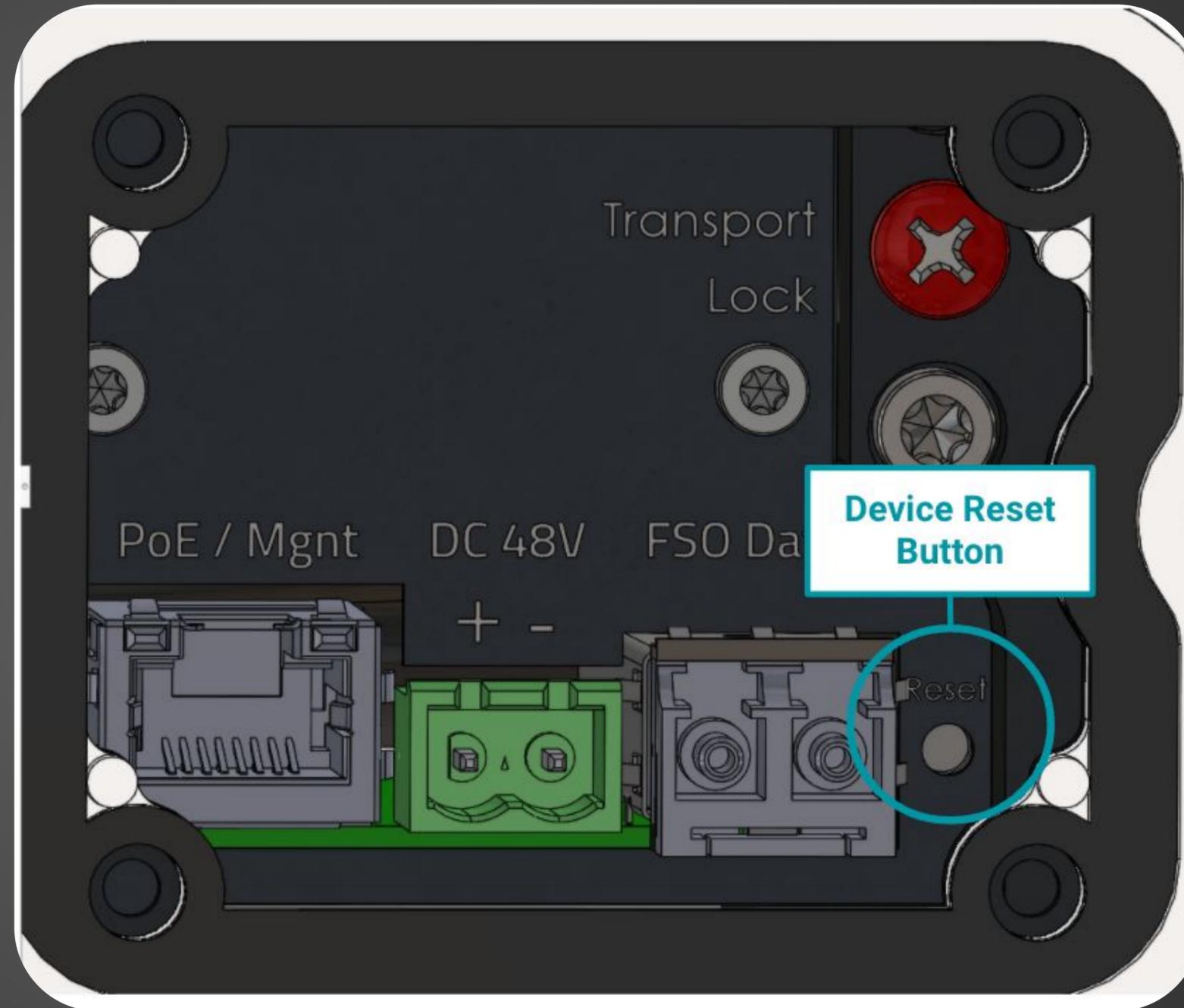


FACTORY RESET ON DEVICE

Perform a factory reset

A reset erases all data and custom settings!

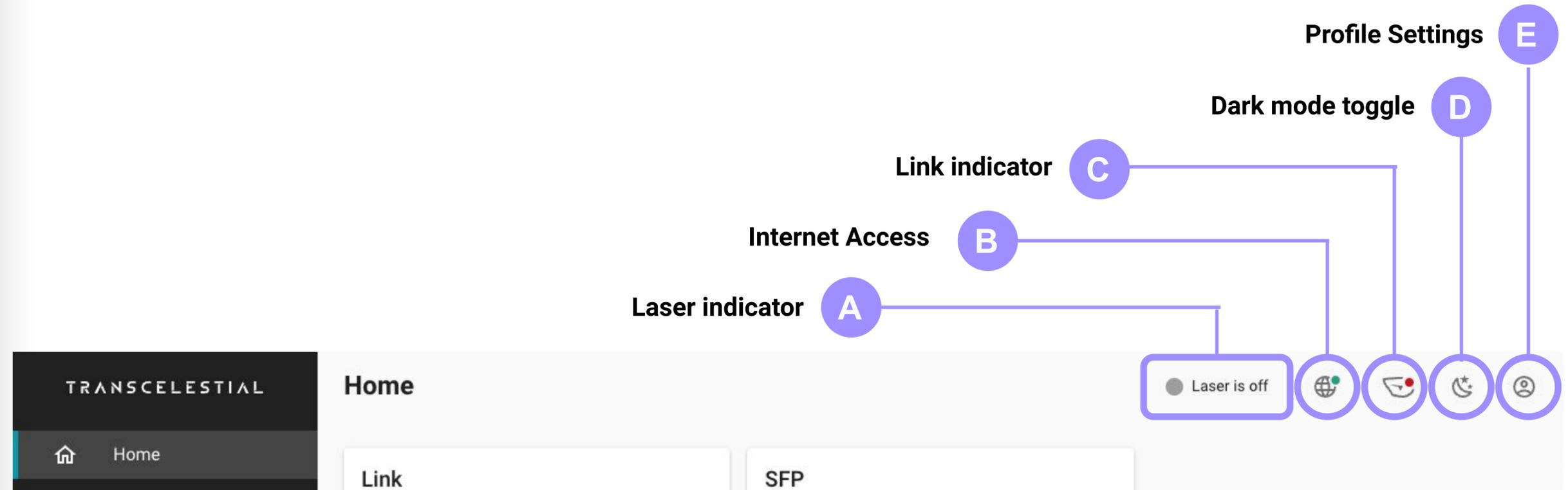
1. Locate the device reset button inside the I/O chamber.
2. Press and hold the reset button within the I/O chamber for 5 seconds to reset.
3. Wait at least two (2) minutes for the reset to complete.
4. There is also another option to do a factory reset via DMD which we will go through later.



HOME

TOP NAVIGATION

- 1 LASER INDICATOR**
Indicates if status of laser is **ON**, **UNKNOWN** or **OFF**.
- 2 INTERNET ACCESS**
Indicates if access to internet is available.
- 3 LINK INDICATOR**
Indicates if status of link is **OK**, **DEGRADED** or **NOT OPERATIONAL**.
- 4 DARK MODE TOGGLE**
Toggles between light and dark mode.
- 5 PROFILE SETTINGS**
View and change account settings.



HOME

TOP NAVIGATION (DEFINITIONS)

CENTAURI runs automatic checks every few seconds to ensure that all components and services are working as expected.

Laser Status Indicator

State	What it means	Details
 Laser is on	Laser is on	Laser safety protocols must be observed and followed.
 Laser state unknown	Laser state is unknown	Laser safety protocols must be observed and followed. Check to see if link and device are working properly.
 Laser is off	Laser is off	Laser is off.

Link Status Indicator

State	What it means	Details
 Link is up	<ul style="list-style-type: none">● Everything is good● Laser is on and active	<ul style="list-style-type: none">● Link is up, with good Rx power● Laser safety protocols must be observed and followed.
 Link down or status unknown	<ul style="list-style-type: none">● Link is down or status is unknown● Laser may be on and active	<ul style="list-style-type: none">● Rx power unstable or intermittent● Low or no Rx power● Temperature may be too high● High vibration levels detected● Laser safety protocols must be observed and followed. Check to see if link and device are working properly.

HOME

THE DASHBOARD

V5.0+

The dashboard on V5 onwards has a few more additional information. The dashboard on the right is what an user can expect to login and see from a new device that is on V5 or has been updated to V5.

At this point, the TX power of the link is UNK (Unknown) because this device has yet to go through an alignment.

The user is required to perform an alignment to start seeing information on the Link TX. Link RX will only reflect values post alignment of the second device. RX value of -40dBm indicates loss of signal.

Ignore the SW version on the dashboard because we are using a R&D version of the V5 SW.

But take note from V5, you are able to perform SW updates via the DMD with an internet connection. You will notice an UPDATE option appear beside the firmware version if there is any latest SW available.

TRANSCESTIAL

- Home
- Alignment
- Network
- Settings
- Support



Home

Laser is on    

Link

Status **Good**
Alignment **Good**
Link Distance 1200 meters

↑ TX **6.06** dBm | ↓ RX **-16.23** dBm

SFP

Status **Down (E1097)**
Temperature 47.37°C
Voltage 3.31V

↑ TX **-2.95** dBm | ↓ RX **-16.62** dBm

View information 

Device

Datetime Thu Aug 17 2023 13:10 | Temperature 47.68°C
Uptime 6 days | Humidity 46.09%

Serial No. CEN010-202305240858 | Version 5.3.2 **UPDATE**
Model 10G | Status **Operational**

HOME

SW UPDATE

Upon clicking the UPDATE button, you will be led to another page where you are informed of the version that is available.

TRANSCESTIAL

- Home
- Alignment
- Network
- Settings
- Support

Home

● Laser is on

Link

Status **Good**
Alignment **Good**
Link Distance 1200 meters

↑ TX **6.06** dBm | ↓ RX **-16.23** dBm

SFP

Status **Down (E1097)**
Temperature 47.37°C
Voltage 3.31V

↑ TX **-2.95** dBm | ↓ RX **-16.62** dBm

View information ▾

Device

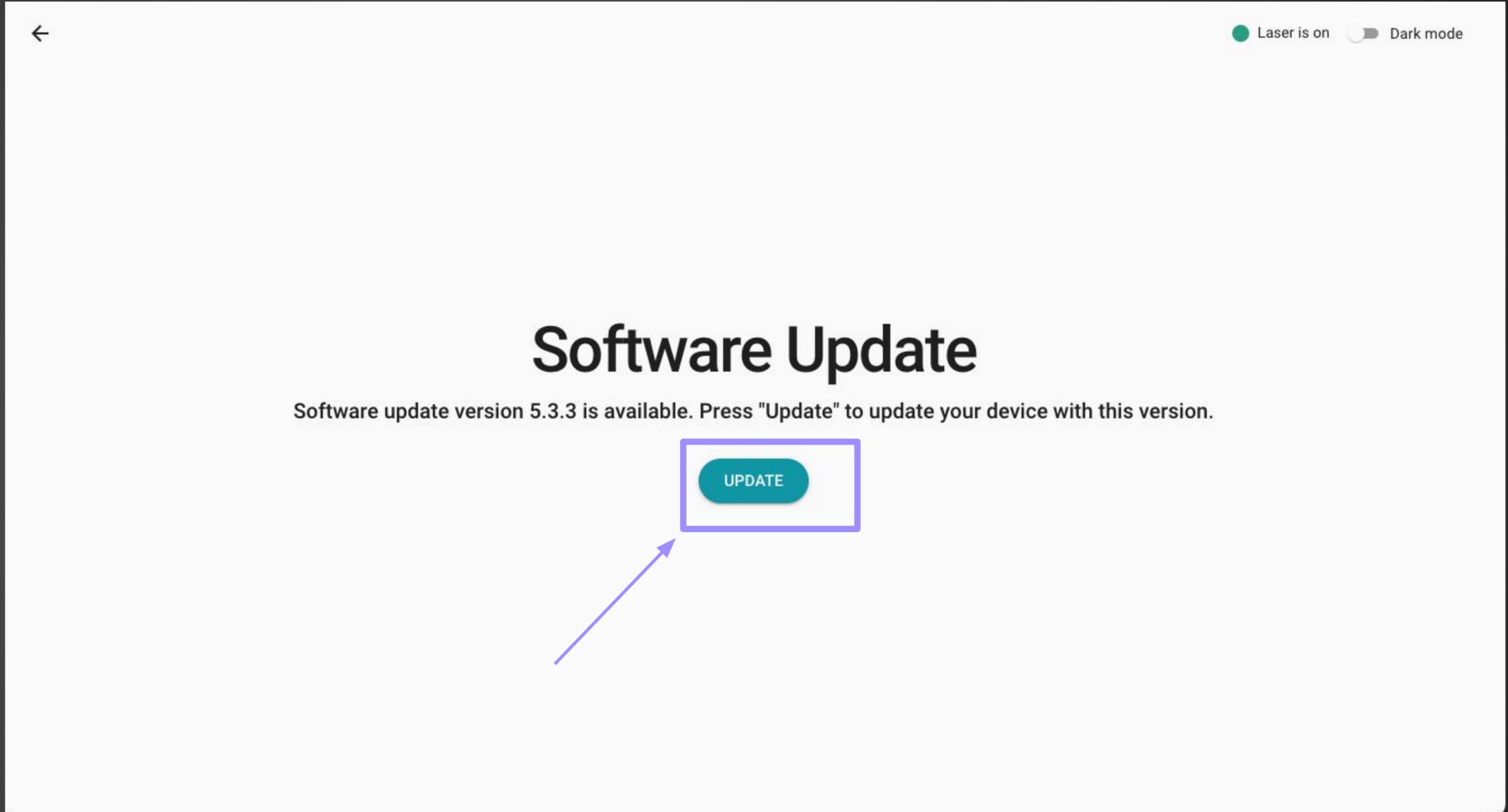
Datetime	Thu Aug 17 2023 13:10	Temperature	47.68°C
Uptime	6 days	Humidity	46.09%
Serial No.	CEN010-202305240858	Version	5.3.2 UPDATE
Model	10G	Status	Operational

HOME

SW UPDATE

Clicking the UPDATE button will take the device into maintenance mode and there will be an update downloaded from the cloud server to the device. A reboot to the device will be triggered upon which the new SW will be activated.

If you do not wish to proceed with the update, please click on the back arrow located on the top left corner of the screen.



HOME

SIDE NAVIGATION

Updated options for side navigation

Users who have used our previous versions of DMD, you would need to perform fine tuning post coarse alignment. That fine tuning feature was part of the side navigation options.

From V5 onwards, the fine tuning feature is no longer available and the fine tuning is done by the device itself at the end of the second device alignment.

In summary, users will just need to run the first device and second device alignment consecutively to set up the link successfully.

TRANSCELESTIAL

- Home
- Alignment
- Network
- Settings
- Support

<

Home

Laser is on    

Link

Status	Good
Alignment	Good
Link Distance	1200 meters

↑ TX	↓ RX
6.06 dBm	-16.23 dBm

SFP

Status	Down (E1097)
Temperature	47.37°C
Voltage	3.31V

↑ TX	↓ RX
-2.95 dBm	-16.62 dBm

View information 

Device

Datetime	Thu Aug 17 2023 13:10	Temperature	47.68°C
Uptime	6 days	Humidity	46.09%
Serial No.	CEN010-202305240858	Version	5.3.2 UPDATE
Model	10G	Status	Operational

HOME

Link Status

Comprehending Link Status Information

Refer to the table on the right to understand the various contexts of Link Status.

Both Link Status and Alignment Status are grouped together since they are an indication of the wireless Centauri link.

Error codes are a new feature and will be helpful to understand any issue for further investigation.

LINK STATUS	WHAT IT MEANS	DETAILS
OK	<ul style="list-style-type: none"> Everything is good Laser is on and active 	<ul style="list-style-type: none"> Link is up, with good Rx power Laser safety protocols must be observed and followed.
DEGRADED	<ul style="list-style-type: none"> E1062 E1084 	<ul style="list-style-type: none"> Bad Rx TxLaserTempLow (Laser Off)
UNK(UNKNOWN)	<ul style="list-style-type: none"> TX reading 	<ul style="list-style-type: none"> Device has not gone through alignment and no distance has been configured to display TX power
DOWN(Error Codes)	<ul style="list-style-type: none"> E1060 E1074 	<ul style="list-style-type: none"> Link Status Error Tx Off (Laser Off)

HOME

Alignment Status

Comprehending Alignment Status Information

Refer to the table on the right to understand the various contexts of Alignment Status. Both Link Status and Alignment Status are grouped together since they are an indication of the wireless Centauri link.

Error codes are a new feature and will be helpful to understand any issue for further investigation.

The screenshot shows the 'Home' dashboard of the Transcelestial system. The left sidebar contains navigation options: Home, Alignment, Network, Settings, and Support. The main content area displays two status cards: 'Link' and 'SFP'. The 'Link' card is highlighted with a blue border and shows a status of 'Down (E1060, E1074)', 'Alignment Not aligned (E1041)', and 'Link Distance 0 meters'. Below this, it shows TX power as 'UNK dBm' and RX power as '-40.00 dBm'. The 'SFP' card shows a status of 'Down (E1097, E1093)', a temperature of 49.12°C, and a voltage of 3.31V. It also shows TX power as '-5.51 dBm' and RX power as '-40.00 dBm'. A 'View information' link is present below the SFP card. At the top right, there are icons for 'Laser is off', a globe, a signal strength indicator, a refresh icon, and a user profile icon.

ALIGNMENT	WHAT IT MEANS	DETAILS
GOOD	<ul style="list-style-type: none">Alignment is complete	<ul style="list-style-type: none">Alignment of device is successful.
DEGRADED	<ul style="list-style-type: none">Alignment has drifted	<ul style="list-style-type: none">Monitor further and redo alignment if performance is impacted
NOT ALIGNED	<ul style="list-style-type: none">Alignment is Incomplete	<ul style="list-style-type: none">Alignment of device is unsuccessful.

HOME

SFP Status

Comprehending SFP Status Information

Refer to the table on the right to understand the various contexts of SFP Status.

The SFP status represents the data port on the Centauri which is via a SFP/SFP+ module.

Error codes are a new feature and will be helpful to understand any issue for further investigation.

The screenshot shows the 'Home' page of the Transcelestial interface. On the left is a navigation menu with options: Home, Alignment, Network, Settings, and Support. The main content area displays two status cards: 'Link' and 'SFP'. The 'SFP' card is highlighted with a blue border. It shows the status as 'Down (E1097, E1093)', a temperature of 49.12°C, and a voltage of 3.31V. The TX power is -5.51 dBm and the RX power is -40.00 dBm. Below the SFP card, there is a 'View information' link and a list of details: Serial No. A141-00985-0111, Vendor Transcelestial, Wavelength 1310nm, and Link length 2km. In the top right corner, there are icons for 'Laser is off', a globe, a signal strength indicator, a refresh icon, and a user profile icon.

SFP STATUS	WHAT IT MEANS	DETAILS
OK	<ul style="list-style-type: none"> SFP/SFP+ is connected on the data port of the Centauri and there is both TX and RX readings 	<ul style="list-style-type: none"> External SFP is properly connected on both Centauri and switch/router Data is flowing through the link No alarms or warnings
DOWN(Error Codes)	<ul style="list-style-type: none"> E1097 E1093 	<ul style="list-style-type: none"> No Ext SFP Rx No Ext SFP Link
UNK(UNKNOWN)	<ul style="list-style-type: none"> SFP may be working but there are problems External SFP may not be connected properly No data flow detected 	<ul style="list-style-type: none"> SFP may be too hot Alarms or warnings are being triggered External SFP could be inserted incorrectly SFP may not be properly connected to a switch Switch port misconfigured or blocked

ALIGNMENT

HOW TO START

To start the alignment process, click on **Alignment** in the side navigation bar.

If the device is part of an existing link, starting the **Alignment** process will prompt the user to confirm that they really want to break the existing link and start a new alignment.

The screenshot displays the Transcestial web interface. On the left, a dark sidebar contains a navigation menu with 'Home', 'Alignment' (highlighted with a purple box), 'Network', 'Settings', and 'Support'. The main content area is titled 'Home' and features a top right status bar with 'Laser is off' and several icons. Below this, there are three main panels:

- Link Panel:** Shows 'Status: Down (E1060, E1074)', 'Alignment: Not aligned (E1041)', and 'Link Distance: 0 meters'. It includes TX and RX power indicators: TX is 'UNK dBm' and RX is '-40.00 dBm'.
- SFP Panel:** Shows 'Status: Down (E1097, E1093)', 'Temperature: 49.12°C', and 'Voltage: 3.31V'. It includes TX and RX power indicators: TX is '-5.51 dBm' and RX is '-40.00 dBm'. A 'View information' link is present below the indicators.
- Device Panel:** Displays system information: 'Datetime: Tue Jun 6 2023 16:09', 'Uptime: About 2 months', 'Temperature: 42.88°C', 'Humidity: 19.42%', 'Serial No.: CEN010-202111010312', 'Model: 10G', 'Version: 4.2.0+git.sha. .branch.' with an 'UPDATE' link, and 'Status: Operational'.

ALIGNMENT

PREREQUISITES

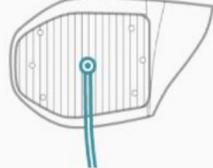
Before starting alignment, users are asked to confirm that these requirements have been met.

← → ↻ https://10.11.12.13/align

← Alignment Laser is on Dark mode

Before we begin

! **Important!** These must be done before proceeding to ensure safety for you and the device

-  Site survey done
(if needed)
-  Training Manual
-  Clear line-of-sight
-  Grounding cable connected
-  Removed transport lock

START →

ALIGNMENT

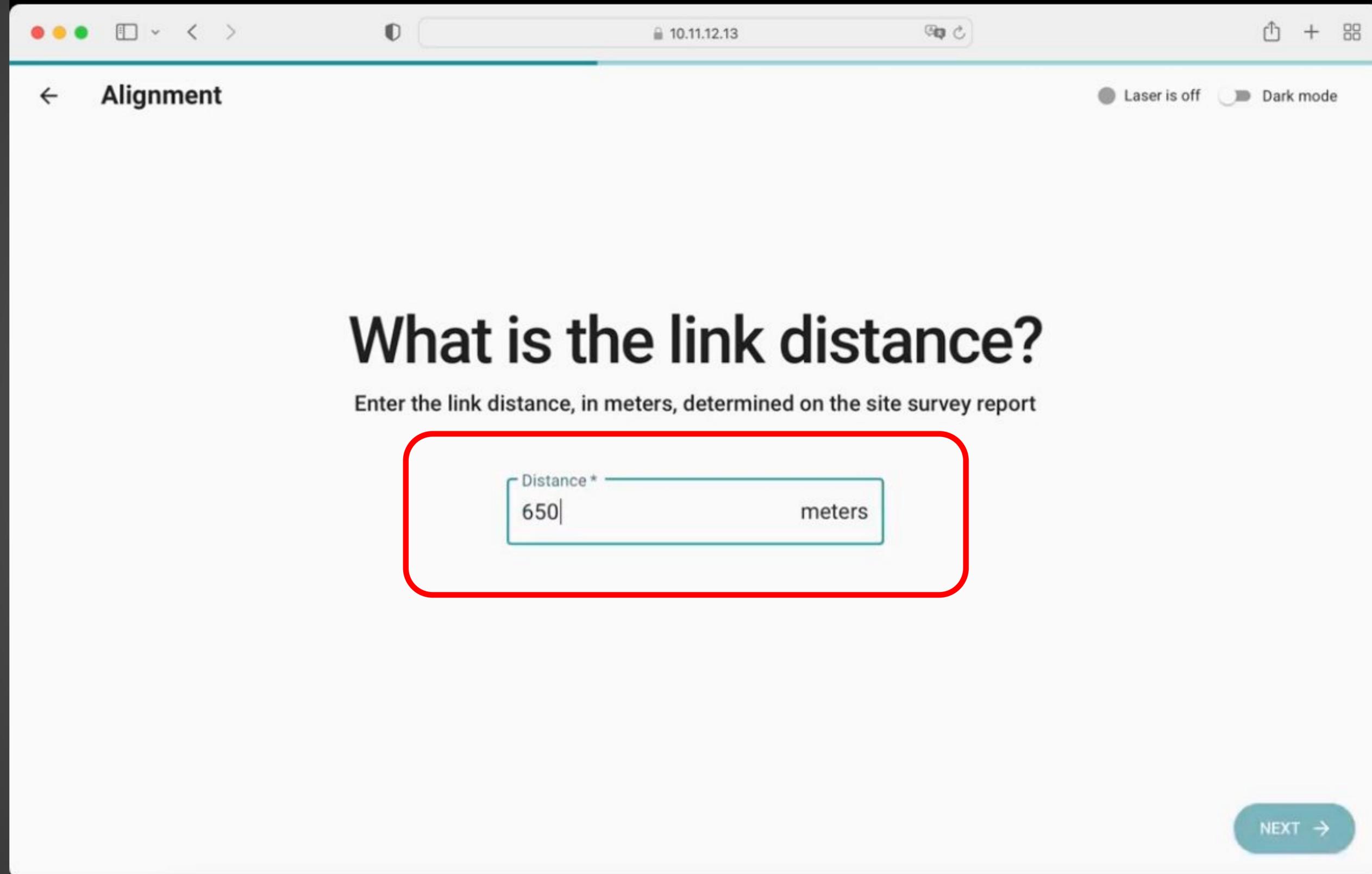
ENTERING LINK DISTANCE

IMPORTANT!

BE SURE TO ENTER AN
ACCURATE LINK
DISTANCE!

When prompted to enter the distance of your link, be sure to provide accurate information.

Failure to enter the correct link distance may result in damage to the optical components inside the device!



The screenshot shows a mobile application interface for entering link distance. The browser address bar at the top displays the IP address 10.11.12.13. The app title is "Alignment". In the top right corner, there are two toggle switches: "Laser is off" (which is currently off) and "Dark mode" (which is currently on). The main heading is "What is the link distance?". Below the heading is a sub-heading: "Enter the link distance, in meters, determined on the site survey report". A text input field is centered on the screen, containing the value "650" and the unit "meters". The input field is highlighted with a red rounded rectangle. At the bottom right of the screen, there is a blue button labeled "NEXT" with a right-pointing arrow.

ALIGNMENT

ENTERING LINK DISTANCE

New Minimum Distance

Previously on the DMD, we supported link distances ranging from 200m to 3km. With V5, we do support distances less than 200m. The new minimum distance supported is 50m for a Centauri laser link. But please remember to follow our safety guidelines for deployment. The safety guidelines remain the same. The maximum distance supported to be configured on the DMD is still 3000m.

← Alignment Laser is off Dark mode

What is the link distance?

Enter the link distance, in meters, determined on the site survey report

Distance * meters

Distance cannot be less than 50 meters

NEXT →

ALIGNMENT

LASER PASSCODE

A laser passcode has to be entered when turning on the laser as a laser safety precaution.

As always, take precautions to avoid exposure to the laser beam. DO NOT look into the aperture window at the front of the device while it is in operation!



LASER PASSCODE

Request a passcode [here](#).

Turn on the laser

Enter the laser passcode, provided during training, to enable the laser

⚠ Important! Read the manual on eye protection for laser safety

[Forgot passcode?](#)

ALIGNMENT

FIRST DEVICE

Select “**First Device**” and follow on screen instructions to proceed with alignment.

NOTE

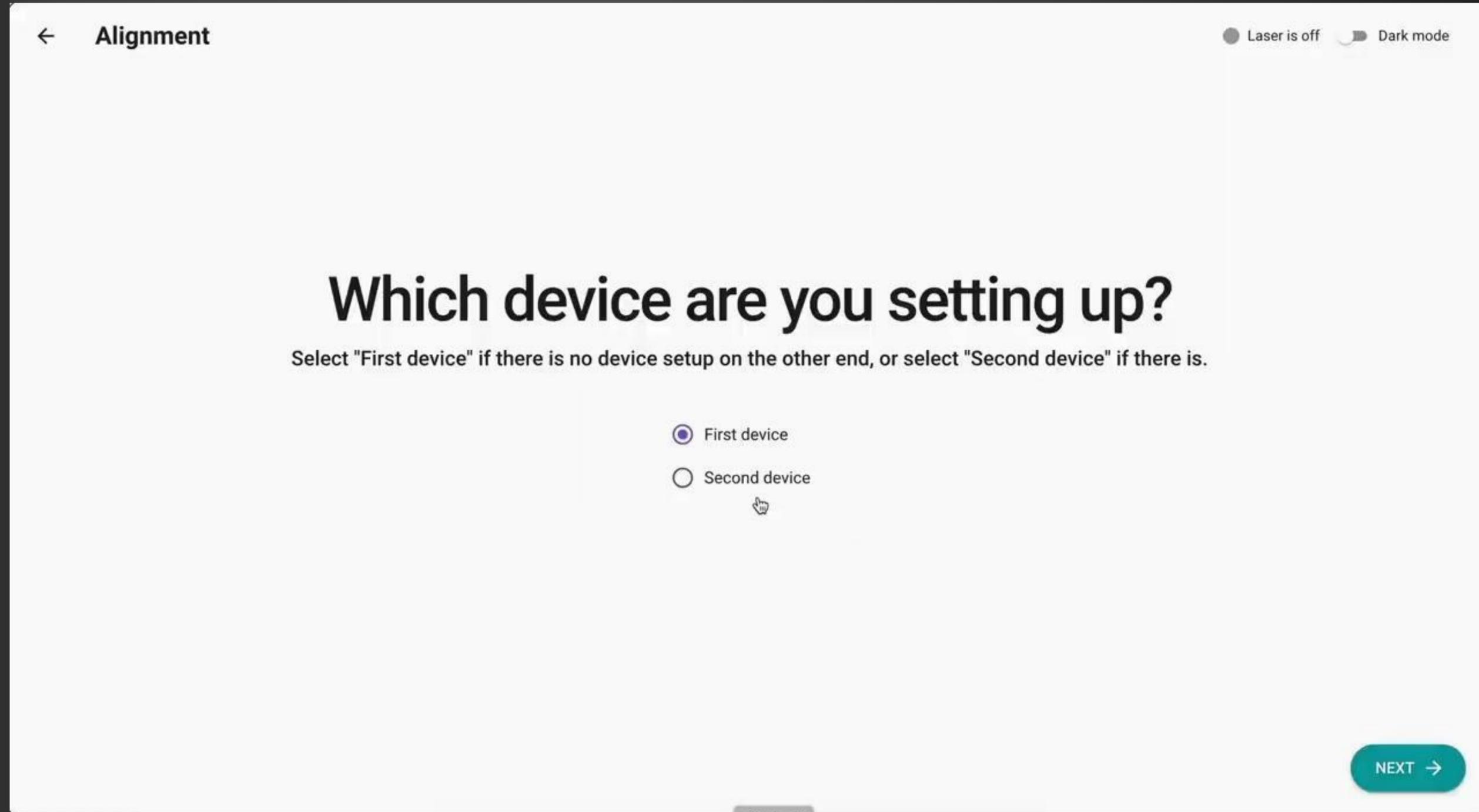
We call the two CENTAURI devices in a link the “**First Device**” and “**Second Device.**”

The “**First Device**” is simply aimed at the location of the other end of the link. Often there is no device set up at the location being targeted.

The “**Second Device**” is **always** the device that is used to complete the setup of a link, by aiming at the “First Device” and its flashing beacon.

LASER PASSCODE

Request for passcode [here](#).



ALIGNMENT

FIRST DEVICE

NOTE

Post First Device alignment, take note of the indicators on the dashboard.

The link status shows 'Down' because at the point only the first device has been aligned. E1062 means there's bad rx margin.

Only post alignment of the second device, the link will be set up.

The SFP status is good because the Centauri data port has been connected to a switch/router SFP/SFP+ port and the readings indicate TX/RX values within the proper range.

The screenshot displays the 'Home' dashboard of the Transcestial system. The interface includes a top navigation bar with the brand name 'TRANSCESTIAL' and a 'Home' title. A sidebar on the left contains navigation options: Home, Alignment, Network, Settings, and Support. The main content area is divided into three sections: Link, SFP, and Device. The Link section shows a 'Down (E1062)' status, 'Good' alignment, and a link distance of 1500 meters. It also displays TX power at 13.02 dBm and RX power at -29.21 dBm. The SFP section shows a 'Good' status, a temperature of 47.90°C, and a voltage of 3.32V. It displays TX power at -5.05 dBm and RX power at -9.65 dBm. The Device section provides system information including the datetime (Wed Jun 21 2023 08:58), uptime (About 10 hours), temperature (46.25°C), humidity (29.77%), serial number (CEN010-202111010619), model (10G), and version (5.0.0-rc.36+git.sha.f5303c0e.branch.fix-dmd-restart-add-countdown-dirty). The device status is 'Operational'. A 'Laser is on' indicator is visible in the top right corner.

Section	Item	Value
Link	Status	Down (E1062)
	Alignment	Good
	Link Distance	1500 meters
	Link Distance	1500 meters
SFP	Status	Good
	Temperature	47.90°C
	Voltage	3.32V
	Voltage	3.32V
Device	Datetime	Wed Jun 21 2023 08:58
	Uptime	About 10 hours
	Temperature	46.25°C
	Humidity	29.77%
	Serial No.	CEN010-202111010619
	Model	10G
	Version	5.0.0-rc.36+git.sha.f5303c0e.branch.fix-dmd-restart-add-countdown-dirty
	Status	Operational

ALIGNMENT

SECOND DEVICE

Select “**Second Device**” and follow on screen instructions to proceed with rest of the alignment.

This time, you will aim this device at the location of the “First Device” and move it until the flashing beacon is inside the square in the camera view.

When ready, the system will help finish the setup of the link.

LASER PASSCODE

Request a passcode [here](#).

ALIGNMENT

NOTE

Post Second Device alignment, take note of the indicators on the dashboard.

A successful alignment will show Link RX values in green as well as 'Good' in terms of Link status and alignment.

The screenshot shows a dashboard interface with a dark theme. On the left is a sidebar with navigation icons: a home icon (highlighted), a refresh icon, a chart icon, a settings icon, and a key icon. The main content area is titled 'Home' and features two primary status cards: 'Link' and 'SFP'. The 'Link' card shows 'Status: Good', 'Alignment: Good', and 'Link Distance: 2000 meters'. Below this, it displays TX power at 19.01 dBm and RX power at -14.99 dBm. The 'SFP' card shows 'Status: Good', 'Temperature: 33.07°C', and 'Voltage: 3.31V'. Below this, it displays TX power at -4.55 dBm and RX power at -4.24 dBm. A 'View information' link with a dropdown arrow is located at the bottom of the SFP card. At the bottom of the dashboard is a 'Device' section with a right-pointing arrow, containing details: Datetime (Fri Jul 28 2023 00:50), Uptime (12 minutes), Temperature (34.15°C), Humidity (23.97%), Serial No. (CEN010-202209200058), and Version (5.1.1). The top right corner of the dashboard includes a 'Laser is on' indicator with a green dot, a globe icon, a refresh icon, a sun icon, and a user profile icon.

Home

Laser is on

Link

Status **Good**

Alignment **Good**

Link Distance 2000 meters

↑ TX **19.01** dBm

↓ RX **-14.99** dBm

SFP

Status **Good**

Temperature 33.07°C

Voltage 3.31V

↑ TX **-4.55** dBm

↓ RX **-4.24** dBm

View information

Device

Datetime Fri Jul 28 2023 00:50

Uptime 12 minutes

Temperature 34.15°C

Humidity 23.97%

Serial No. CEN010-202209200058

Version 5.1.1

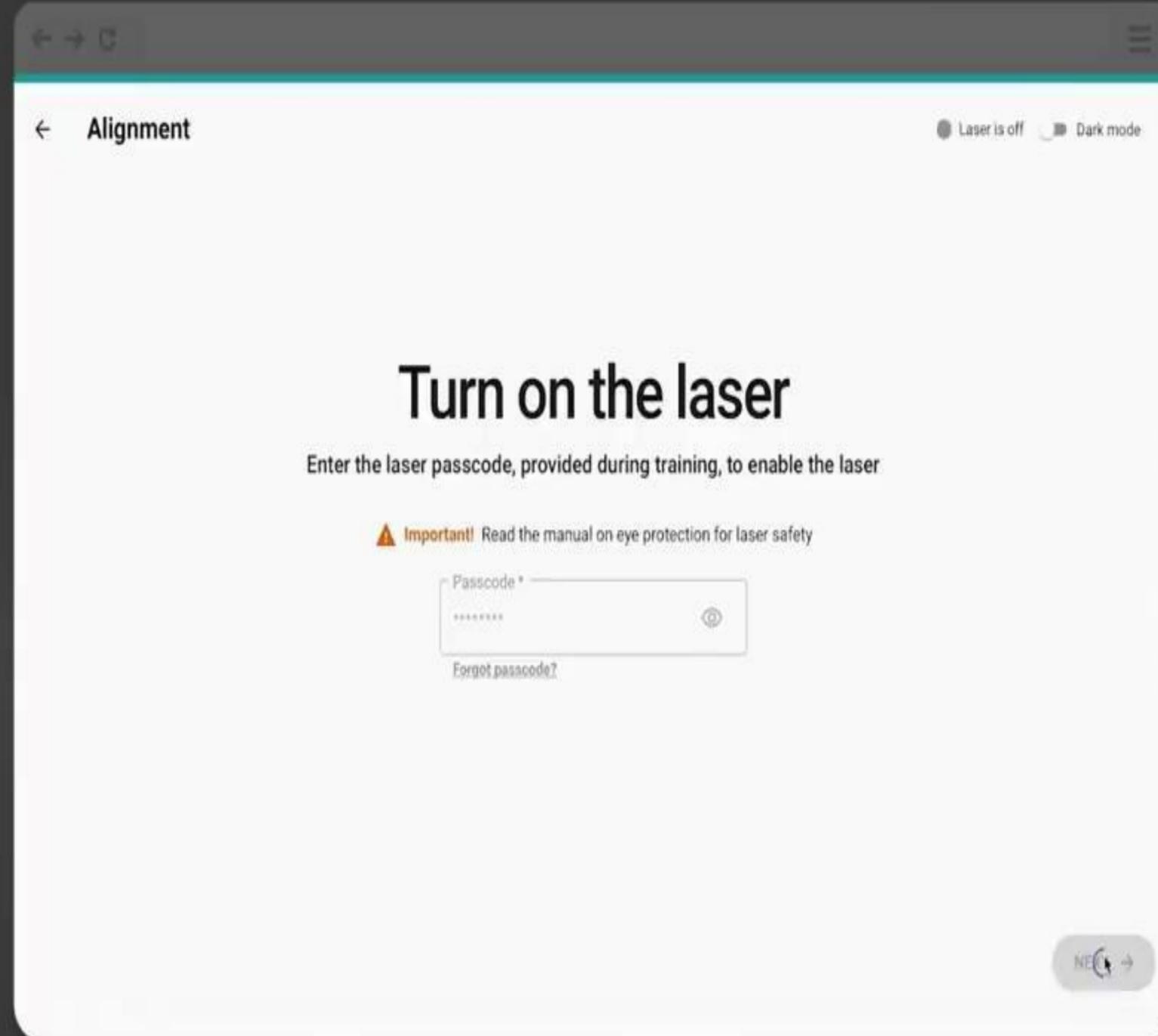
ALIGNMENT

ADJUSTING CENTAURI

Here's a detailed video tutorial of how to easily adjust the Centauri.

Start with the vertical tilt and then the horizontal pan. Use the DMD to guide on alignment.

Remember to always do first device and second device alignment one after another.



Do not stand in front of device when laser is on

SETTINGS

NETWORK

To access **Network Settings**, click on **Network** in the side navigation bar.

The default URL for the device management app is <https://10.11.12.13>.

To use a different static IP address, enter the **CIDR Address**, and the IPV4 address of the **Gateway** to which CENTAURI will be associated.

The DNS server addresses may also be changed from their default settings.

TRANSCESTIAL

Home
Alignment
Network
Settings
Support

Network Settings

CIDR Address
10.11.12.13/24

Gateway
10.11.12.1

DNS
8.8.8.8,1.1.1.1
Comma separated DNS addresses

Use DHCP
If enabled, the above config will be used as a fallback in case of no allocation

SAVE

Laser is off

SNMP Trap Service Settings

Trap Service IP
10.0.0.1

Trap Service Port
162

SAVE

SETTINGS

USING DHCP

To allow CENTAURI to obtain an IP address from a DHCP server on your network, enable the **Use DHCP** option and click **Save**.

When DHCP is enabled, the CIDR Address, the Gateway, and DNS settings entered in the Network Settings area will be used in the event that an IP address cannot be obtained from the DHCP server.

The screenshot shows the 'TRANSCELESTIAL' settings application. On the left is a dark sidebar with a menu: Home, Alignment, Network (highlighted with a purple box), Settings, and Support. The main content area is titled 'Network Settings' and contains two panels. The first panel, 'Network Settings', has three text input fields: 'CIDR Address' (10.11.12.13/24), 'Gateway' (10.11.12.1), and 'DNS' (8.8.8.8,1.1.1.1). Below the DNS field is the text 'Comma separated DNS addresses'. At the bottom of this panel is a 'Use DHCP' toggle switch, which is turned on and highlighted with a purple box. Below the toggle is the text 'If enabled, the above config will be used as a fallback in case of no allocation'. A 'SAVE' button is at the bottom right of the panel. The second panel, 'SNMP Trap Service Settings', has two text input fields: 'Trap Service IP' (10.0.0.1) and 'Trap Service Port' (162). A 'SAVE' button is at the bottom right of this panel. At the top right of the main content area, there is a 'Laser is off' indicator and several status icons.

SETTINGS

NETWORK > SNMP Trap Service Settings

To apply **SNMP Trap Service Settings**

1. Enter the IPV4 address of the monitoring server in the "Trap Service IP" field.
2. Enter the port number on the monitoring server that the Trap service listens on. The default port number for SNMP Traps is 162.

Once these fields are complete, click on **Save** to store these settings.

The screenshot displays the Transcelestial settings application. On the left is a dark sidebar with the following menu items: Home, Alignment, Network (highlighted with a purple box), Settings, and Support. The main content area is titled "Network Settings" and contains two panels. The first panel, "Network Settings", includes fields for CIDR Address (10.11.12.13/24), Gateway (10.11.12.1), and DNS (8.8.8.8,1.1.1.1). Below these is a "Use DHCP" toggle switch which is turned on. The second panel, "SNMP Trap Service Settings", is highlighted with a purple box and contains fields for Trap Service IP (10.0.0.1) and Trap Service Port (162), with a "SAVE" button at the bottom right. The top right of the interface shows a "Laser is off" indicator and several utility icons.

SETTINGS

DEVICE RESTART & FACTORY RESET

The Device Restart and Factory Reset options are new from V5 onwards.

Device restart triggers a restart on the device. All configurations and alignment remains the same and the device goes through a soft reboot. Upon clicking the RESTART button, you will have another prompt before the restart is triggered.

Factory reset is only for defaulting the Centauri unit back to its original state. The configuration and alignment data on the device will be erased. SW version will remain as it is. Upon clicking the RESET button, you will have another prompt before the reset is triggered.

The screenshot displays the 'Settings' page of the Transcestial interface. On the left is a dark sidebar with the 'TRANSCESTIAL' logo and navigation options: Home, Alignment, Network, Settings (highlighted), and Support. The main content area is titled 'Settings' and features a top status bar with 'Laser state unknown' and several icons. The settings are organized into three sections: 'General Settings', 'Hardware Settings', and 'SUPPORT SETTINGS'. In 'General Settings', there are two options: 'Device Restart' (with a 'RESTART' button) and 'Factory Reset' (with a 'RESET' button). 'Hardware Settings' includes 'Laser on/off' and 'Window heater on/off', both with toggle switches. 'SUPPORT SETTINGS' includes 'Remote Access' and 'Maintenance', both with toggle switches. Two callout boxes are overlaid on the interface: one for 'Restart device?' and one for 'Factory reset device?'. Both callouts provide instructions on how to cancel the action (pressing ESC or clicking outside the dialog) and feature a 'RESTART' or 'RESET' button respectively.

SETTINGS

REMOTE ACCESS

The Remote Access setting allows Transcelestial to provide support remotely. This is **disabled by default**. It may be necessary to enable Remote Access when seeking technical support from Transcelestial for troubleshooting and device software updates.

This setting does not affect logging & monitoring services.

The screenshot displays the Transcelestial Settings application. On the left is a dark sidebar with the 'TRANSCESTIAL' logo and navigation options: Home, Alignment, Network, Settings (highlighted), and Support. The main content area is titled 'Settings' and features a status indicator 'Laser state unknown' and system icons. It is divided into two columns: 'General Settings' and 'Hardware Settings'. The 'General Settings' column includes 'Device Restart' (with a 'RESTART' button), 'Factory Reset' (with a 'RESET' button), and a 'SUPPORT SETTINGS' section. The 'Remote Access' setting is highlighted with a purple box; it is labeled 'Remote Access' and 'Allow Transcelestial to access the device remotely', with a toggle switch turned on. Below it is the 'Maintenance' setting, labeled 'Set the device in maintenance mode', also with a toggle switch turned on. The 'Hardware Settings' column includes 'Laser on/off' and 'Window heater on/off', both with toggle switches currently turned off.

SETTINGS

MAINTENANCE MODE

The Maintenance Mode setting allows a user to audit that work is being carried out on the device.

This is **disabled by default**. It may be necessary to enable Maintenance mode when seeking technical support from Transcestial for troubleshooting and device software updates.

This setting does not affect logging & monitoring services.

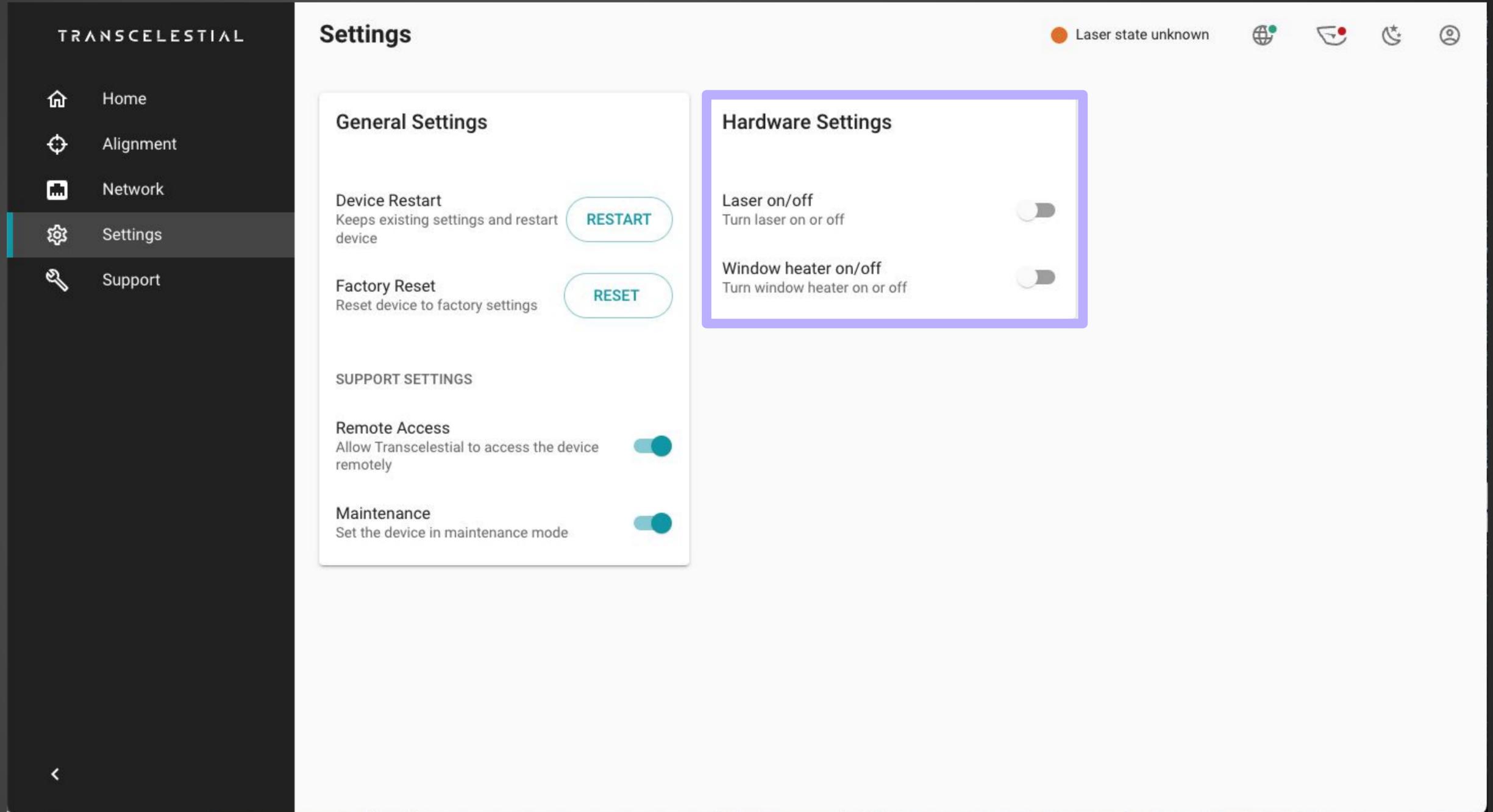
The screenshot displays the Transcestial Settings application interface. On the left is a dark sidebar with the Transcestial logo and navigation options: Home, Alignment, Network, Settings (highlighted with a teal bar), and Support. The main content area is titled 'Settings' and features a status indicator 'Laser state unknown' and several utility icons. It is divided into three sections: 'General Settings' with 'Device Restart' (RESTART button) and 'Factory Reset' (RESET button); 'SUPPORT SETTINGS' with 'Remote Access' (toggle on) and 'Maintenance' (toggle on, highlighted with a purple box); and 'Hardware Settings' with 'Laser on/off' and 'Window heater on/off' (both toggles off). A back arrow is visible in the bottom left of the sidebar.

SETTINGS

HARDWARE SETTINGS

Under hardware settings, you have the option of turning off the laser. By default, this is turned off. Every Centauri unit shipped has by default the laser turned off. This is for safety reasons. After alignment, you will notice the laser is turned on. Toggling the option to off the laser will break the link.

There is a Window Heater On/Off option as well. This is only for environments where the weather is expected to go 15 degrees celsius and below. Turning the window heater on will enable the window heater in the device which prevents the window of the Centauri device from misting up. To use the window heater feature you need to use a higher power POE (802.3bt).



SETTINGS

CHANGING PASSWORD

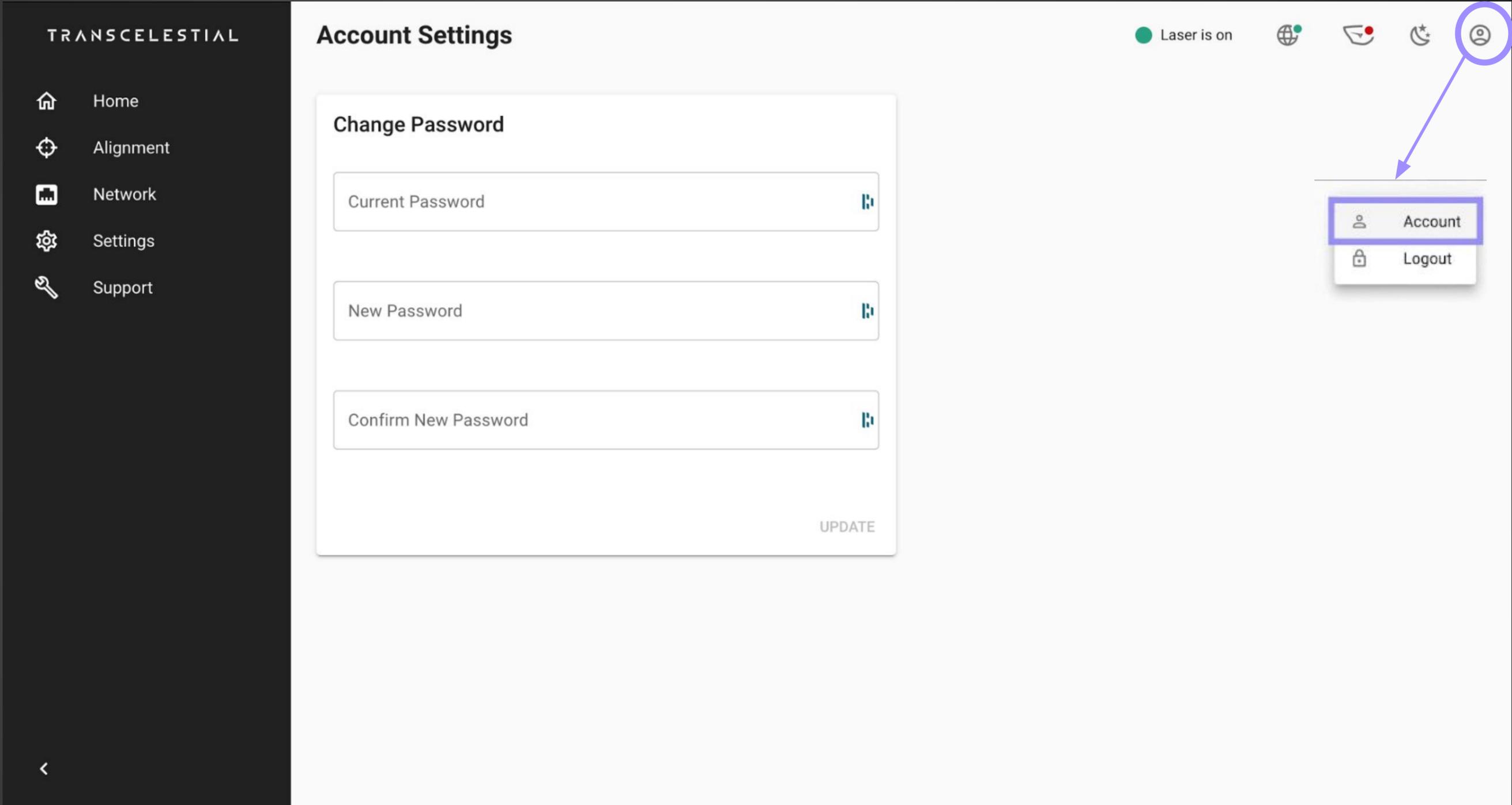
STEP 1

Click on the **Profile** icon on the **Home** screen

STEP 2

Select **Account**

You will be able to see the Password screen page and you can change the password of the device.



LOGOUT

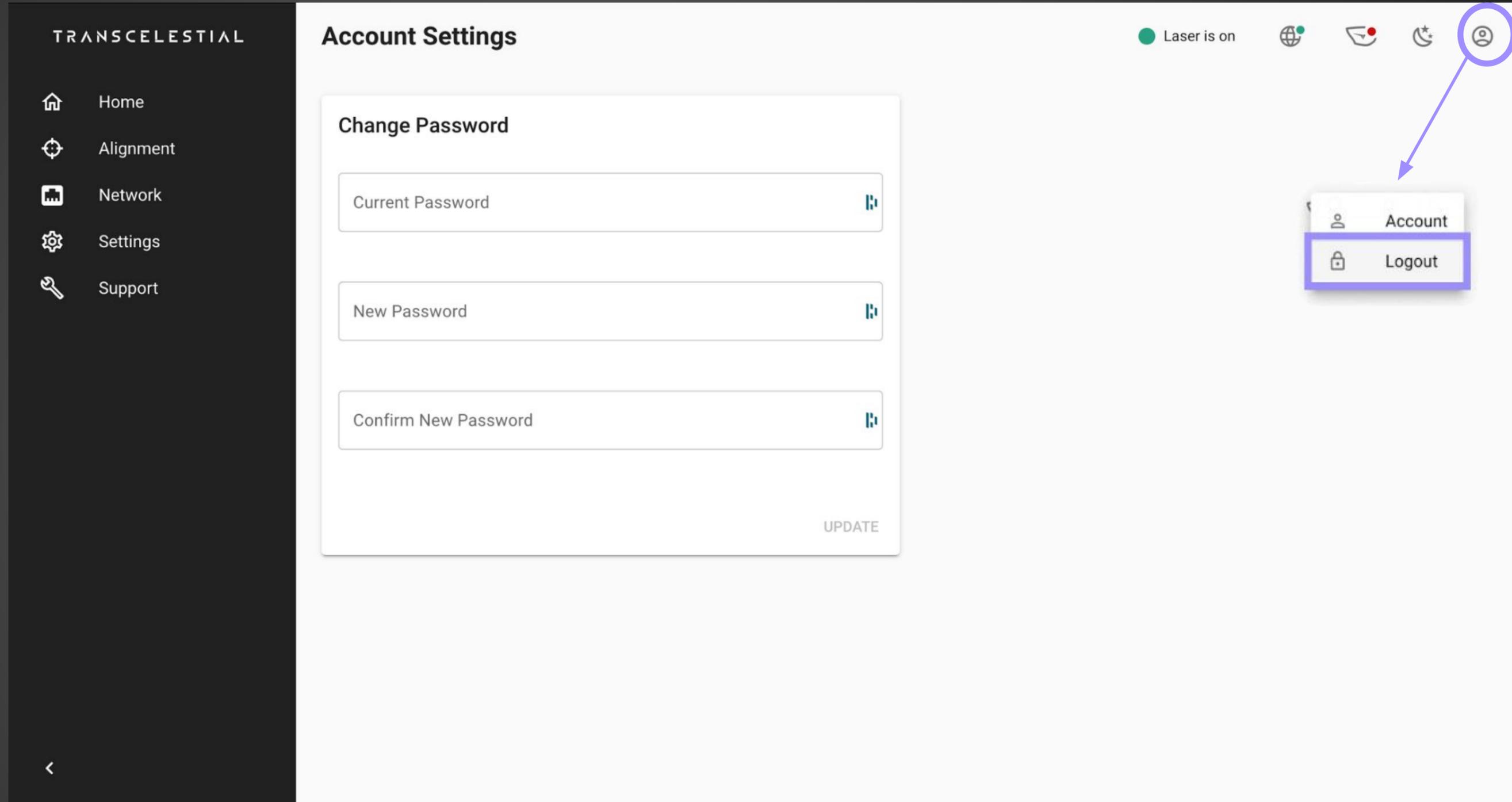
Here's how to logout of the DMD app.

STEP 1

Click on the **Profile** icon on the **Home** screen

STEP 2

Select **Logout**



SUPPORT

SUPPORT ARTICLES

We do have some support articles available for the user in the DMD app itself. Current list of support articles are the most common issues faced and includes troubleshooting on these issues.

For more comprehensive articles and latest FAQs please visit our support portal -

<https://support.transcelestial.com>

TRANSCELESTIAL

- Home
- Alignment
- Network
- Settings
- Support**

Support

Here is a list of common issues and troubleshooting methods. You can also visit our [support portal](#) or [submit a ticket](#).

Power

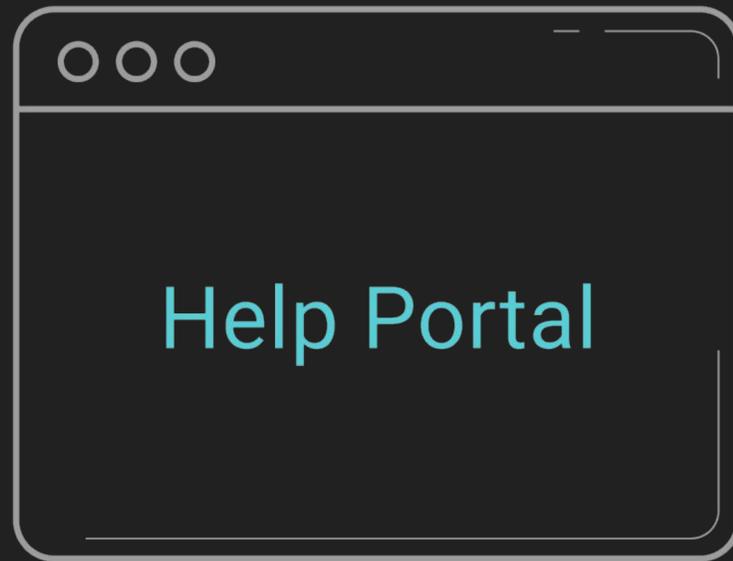
- List of PoE injectors that are compatible with CENTAURI
- List of SFP/SFP+ connectors tested with CENTAURI
- No power to device from DC 48V connection
- Using both PoE and 48V DC Power with CENTAURI
- What are the power requirements for CENTAURI?

Top right: Laser is off, globe icon, eye icon, star icon, profile icon

Bottom left: back arrow icon

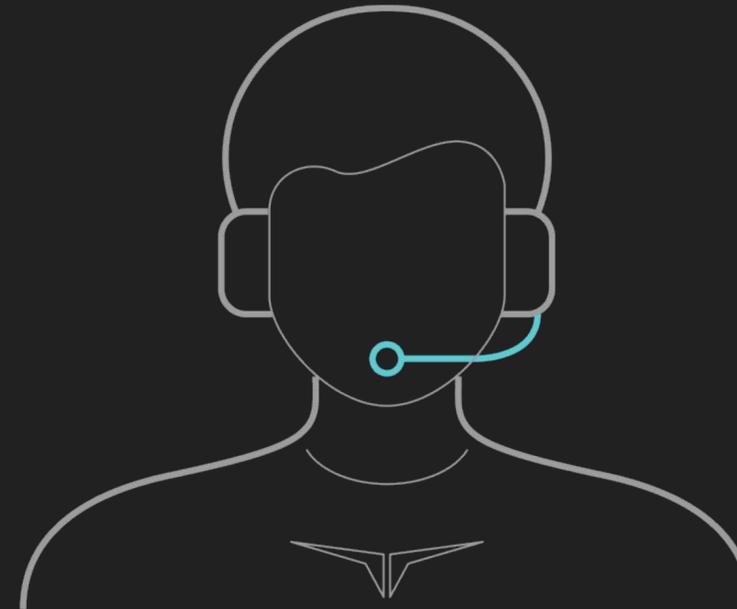
SUPPORT

GETTING HELP



Support Portal

Visit our support portal at support.transcelestial.com to access self-troubleshooting articles.



Submit a Ticket

Need more help? Submit a ticket at transcelestial.com/submit-ticket and we will get back to you as soon as we can!

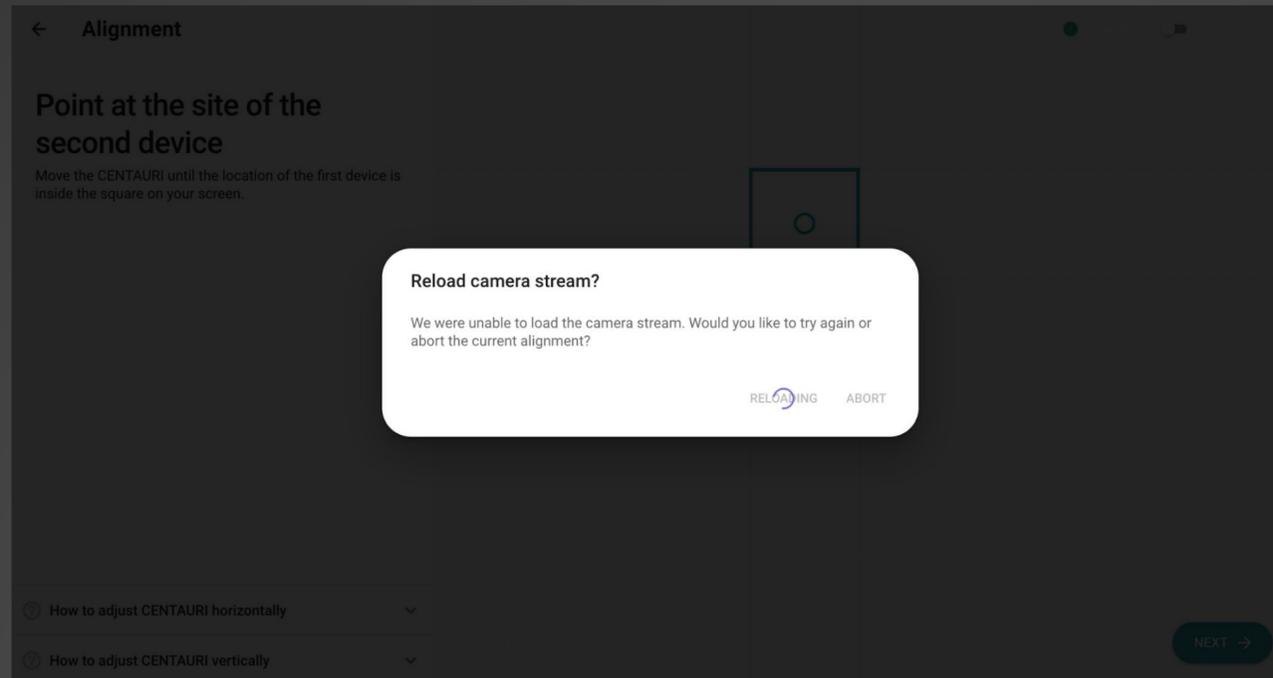
TROUBLESHOOTING

COMMON ISSUES ON DMD

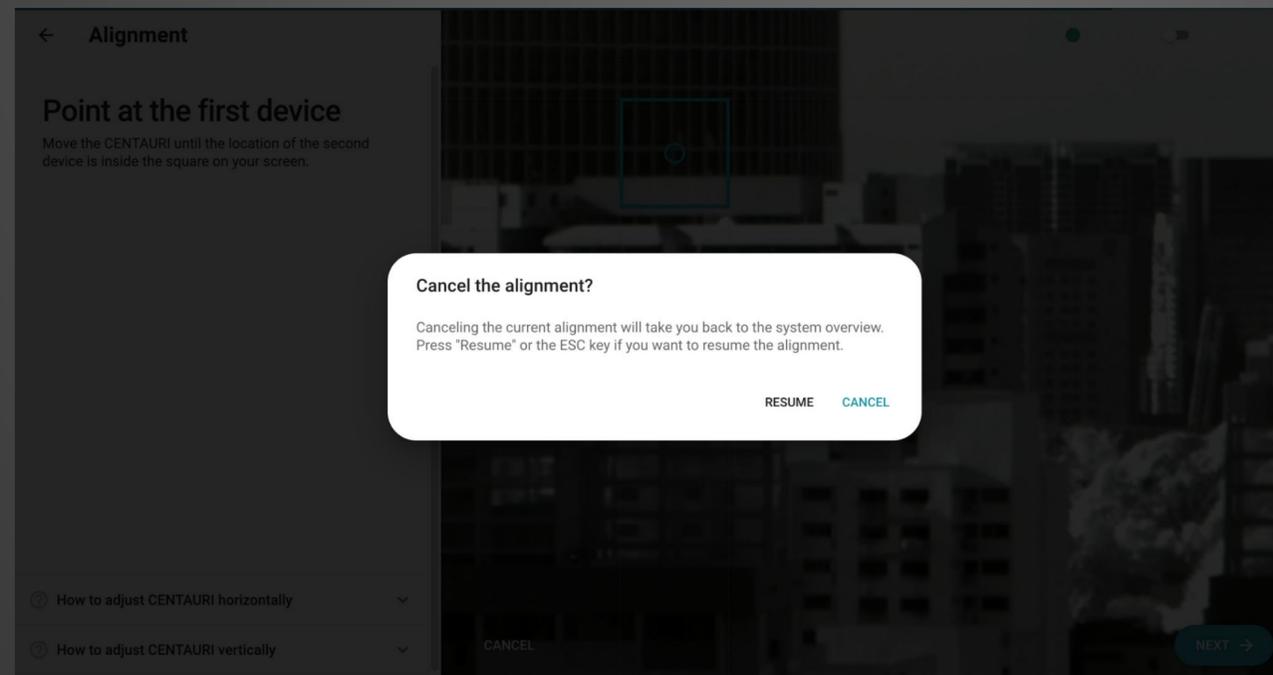
We do have some support articles available for the user in the DMD app itself. Current list of support articles are the most common issues faced and includes troubleshooting on these issues.

For more comprehensive articles and latest FAQs please visit our support portal -

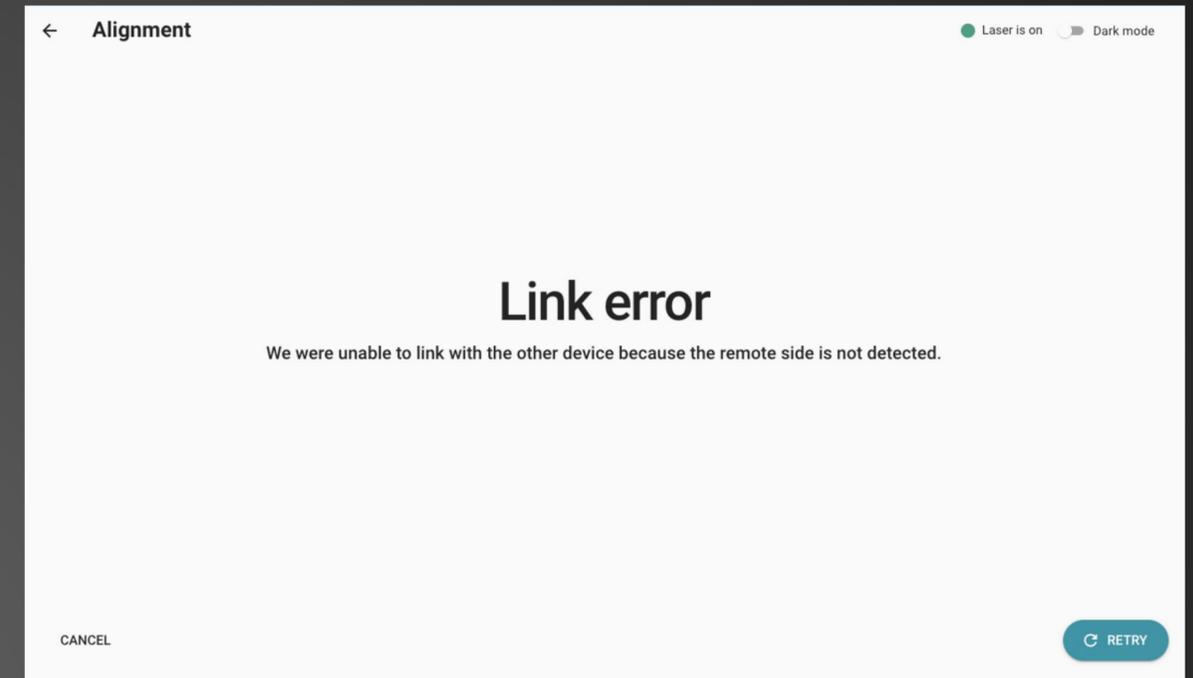
<https://support.transcelestial.com>



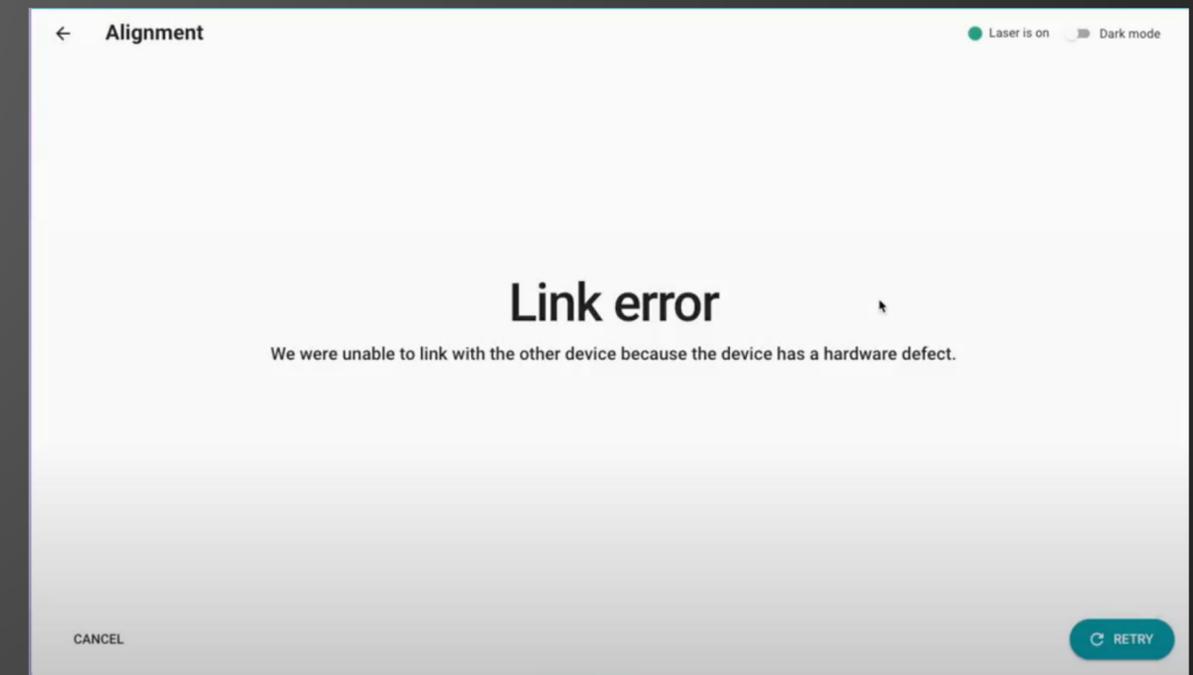
Unable to load camera stream for alignment. Try relaunching again. Abort if unsuccessful. Please ensure transport lock has been removed from device. Contact Transcelestial support if issue persists.



Take note to always cancel alignment via the option on the DMD. Clicking on cancel will launch the above prompt. Exiting the webpage abruptly may cause the device to be in a hang state and some services may not work well later.



This happens typically when the remote end is not pointing accurately or if the Distance entered during alignment is not accurate and thus lesser TX power has been assigned to the device.



The Centauri device always runs a couple of checks before launching the camera stream during alignment. You will see such errors when these checks fail. Common causes are vibrations, transport lock still in device, etc.

—
THE END

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