

htc®



**VIVE™**

# VIVE Cosmos with VIVE Cosmos External Tracking Faceplate User guide

# Contents

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## System requirements

---

Inside the box	5
Requirements	5

---

## Headset and headphones

---

Headset	7
Headphones	30
Common solutions	42

---

## Link box

---

Connecting the headset to your computer via the link box	44
Restarting the link box	45
Can I use older versions of the link box with VIVE Cosmos?	46
Can I use my laptop with VIVE Cosmos?	46
My PC and headset are on, but why can't I see anything?	46

---

## Converter

---

Connecting the headset to your computer via the converter	47
Restarting the converter	48
Can I use a laptop with VIVE Cosmos?	49
My headset and PC are on, but why can't I see anything?	49

---

## Base stations

---

About the VIVE base stations	50
Installing the base stations	51
Tips for setting up the base stations	53
Using the mounting kit	54
Updating base station firmware via Bluetooth	55
Updating base station firmware via cable connection	55
What does the status light on the base stations mean?	56
What should I do if a base station is not detected?	56
Can Base Station 1.0 be used with SteamVR Base Station 2.0?	56
Which VIVE hardware is compatible with my base stations?	57
Is accidental base station damage covered by warranty?	57

---

## Controllers

---

About the VIVE controllers	58
Charging the controllers	59
Turning the controllers on or off	59
Pairing the controllers with the headset	59
Attaching the lanyards to the controllers	60
Updating controller firmware	60
What does the status light on the controllers mean?	62
What should I do if a controller is not tracked?	62
How do I know which controller is not tracked?	62

What can I do if the controller trackpad is oversensitive?	63
What should I do if my controller won't turn on?	63
The controller automatically turns off. What should I do?	63
How do I recover my controller after an interrupted update?	64

---

## Play area

---

What is the play area?	65
Planning your play area	65
Choosing the play area	66
Setting up VIVE Cosmos for the first time	67
Setting up a standing-only play area	67
Setting up a room-scale play area	68
Verifying your setup	69
After setting up, how do I turn the VIVE system on?	69
What is the recommended space for the play area?	70
Can I include space occupied by furniture for the play area?	70
Can seated/standing-only experiences work at room scale?	70
How do I fix download errors during VIVE Setup installation?	70
I can't complete the room setup. What should I do?	70

---

## Settings

---

System Dashboard	71
Changing the Chaperone settings	71
How can I capture screenshots in VR?	72
Disabling Volume limit	72
Enabling motion compensation	73
What is motion compensation?	73
Updating the firmware	73
Troubleshooting VIVE Cosmos	74
Joining the VIVE Cosmos beta program	74
Seeing real surroundings	74
What do the error codes and messages mean? What can I do?	75

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## Trademarks and copyrights

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## Index

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## About this guide

We use the following symbols to indicate useful and important information:



This is a note. It provides detailed information for setup, common questions, and what to do in specific situations.



This is a tip. It will give you an alternative way to do a particular step or procedure that you may find helpful.



This indicates important information that you need in order to accomplish a certain task or to get a feature to work properly.



This is a warning. Take note to avoid potential problems or prevent damage to your hardware.

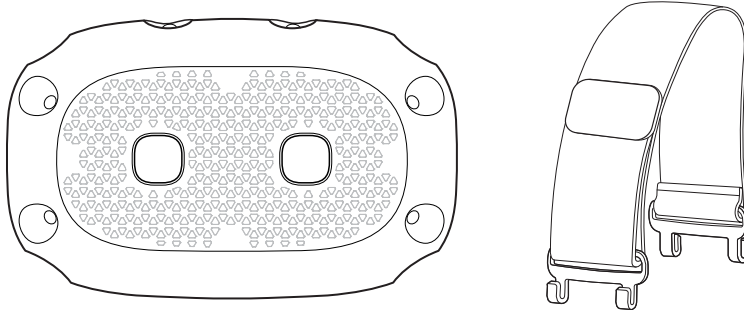
Information contained in this guide may have changed. For the most up-to-date information, including the latest version of this guide, go to [VIVE Support](#).

Before using the product, carefully review VIVE safety information and follow all product safety and operating instructions on <https://www.vive.com/legal/>.

# System requirements

## Inside the box

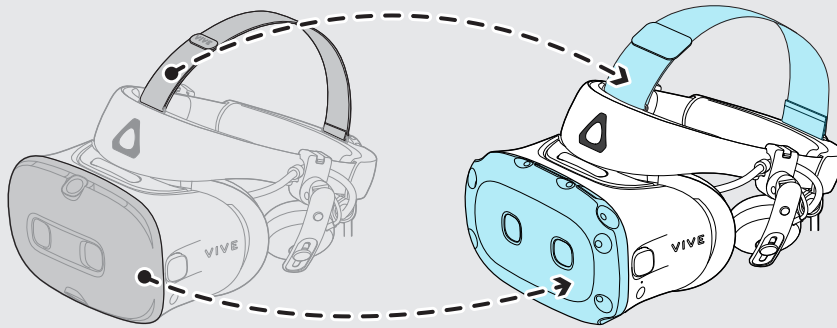
Your VIVE Cosmos External Tracking Faceplate box comes with the following items:



- VIVE Cosmos External Tracking Faceplate
- Top strap



You will need to replace the current VIVE Cosmos front cover and top strap with the VIVE Cosmos External Tracking Faceplate before using it.



See [Installing the VIVE Cosmos External Tracking Faceplate](#) on page 27 and [Attaching the top strap to the headset band](#) on page 25 for details.

## Requirements

To use the VIVE Cosmos External Tracking Faceplate, you need the following:

- VIVE Cosmos
- Base Station 1.0 or 2.0 with compatible VIVE™ controllers



Base Station 2.0 doesn't support VIVE Controller 1.0.

For your VIVE Cosmos, you need to use a computer with at least the following specifications:

Component	Minimum system requirements	Recommended system requirements
<b>Processor</b>	Intel® Core™ i5-4590/AMD FX™ 8350 equivalent or better	Intel Core i5-4590/AMD FX 8350 equivalent or better
<b>GPU</b>	NVIDIA® GeForce® GTX 970 4GB, AMD Radeon™ R9 290 4GB equivalent or better VR Ready graphics card.  Refer to AMD or NVIDIA's VR Ready website for a list of VR Ready graphics cards.	NVIDIA GeForce GTX 1070/Quadro P5000 equivalent or better, AMD Radeon Vega 56 equivalent or better VR Ready graphics card.  Refer to AMD or NVIDIA's VR Ready website for a list of VR Ready graphics cards.
<b>Memory</b>	4 GB RAM or more	8 GB RAM or more
<b>Video output</b>	DisplayPort 1.2 or newer	DisplayPort 1.2 or newer
<b>USB port</b>	1x USB 3.0 or newer	1x USB 3.0 or newer
<b>Operating system</b>	Windows® 10	Windows 10, Windows 11

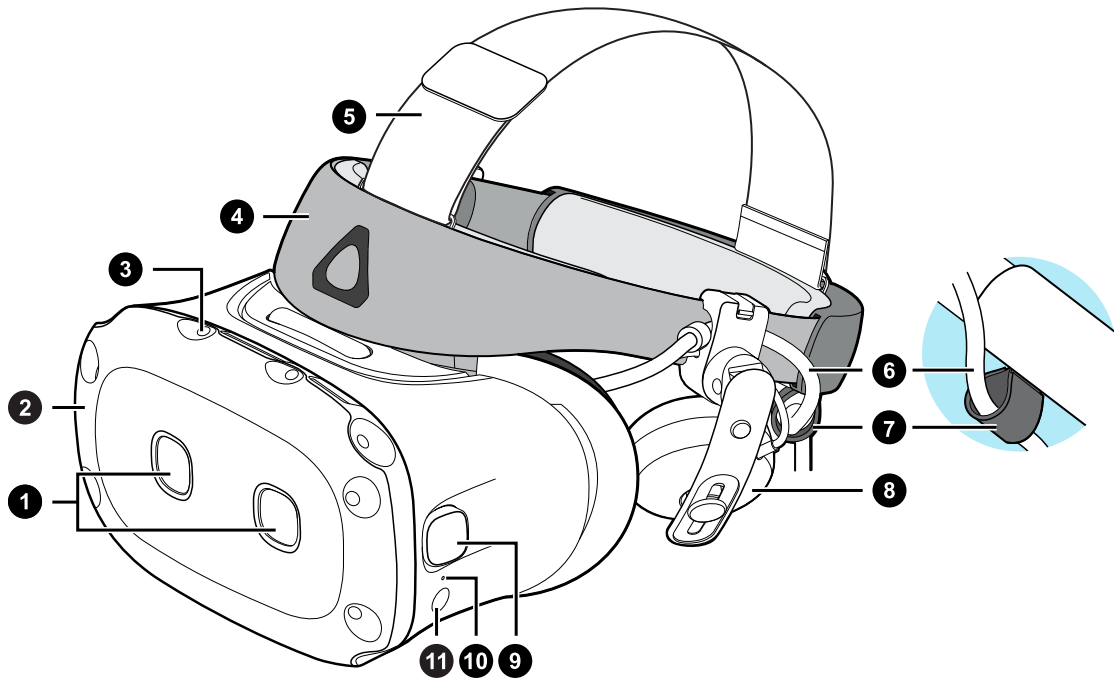
# Headset and headphones

## Headset

### About the VIVE Cosmos headset

VIVE Cosmos is your window to the VR environment. When you use VIVE Cosmos with the External Tracking Faceplate, it needs base stations to track the headset and controllers.

### Front and side views



1. Dual cameras
2. Front cover
3. Tracking sensor
4. Headset band
5. Top strap
6. Headset cable
7. Headset cable strip
8. On-ear headphone
9. Side/tracking cameras

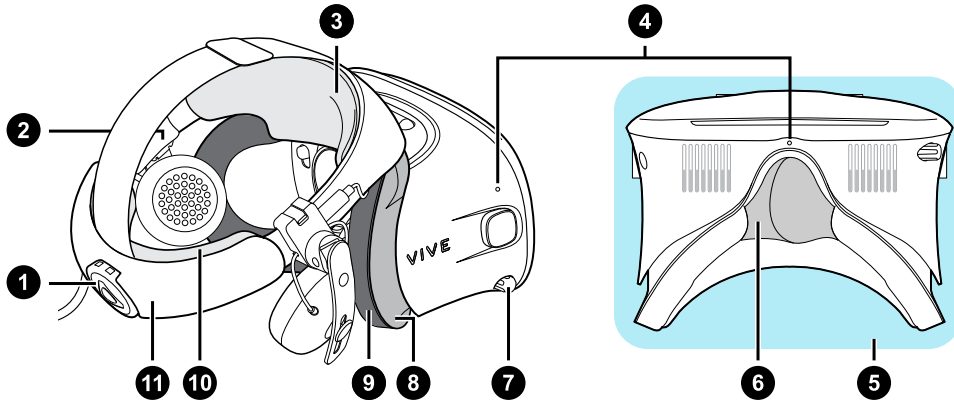
**10.** Status light

**11.** Headset button



- The cameras on the headset are sensitive. Do not cover or scratch them.
- The VIVE Cosmos External Tracking Faceplate doesn't support camera tracking or passthrough. Use a different faceplate that supports these features.

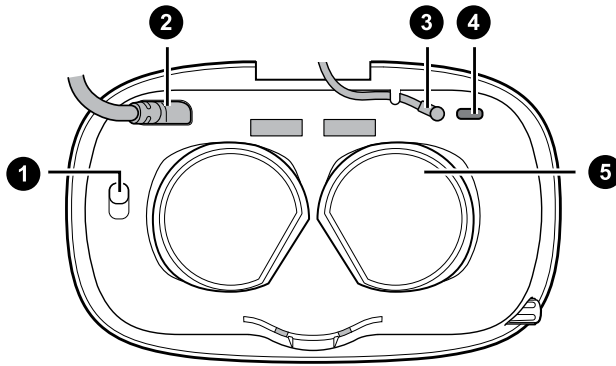
**Back and bottom views**



1. Adjustment dial
2. Side cushion
3. Front pad
4. Mic
5. Visor
6. Nose rest
7. Interpupillary distance (IPD) knob
8. Face cushion frame
9. Face cushion
10. Back pad
11. Headset band



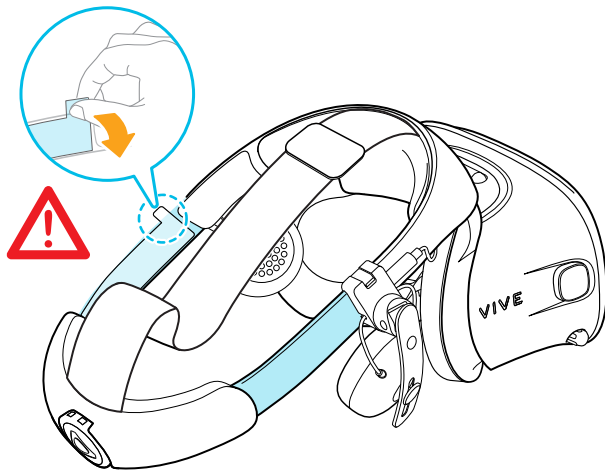
**Inner view (face cushion frame removed)**



1. Front cover lock button
2. Headset cable
3. Audio cable
4. USB Type-C® cable slot
5. Lenses

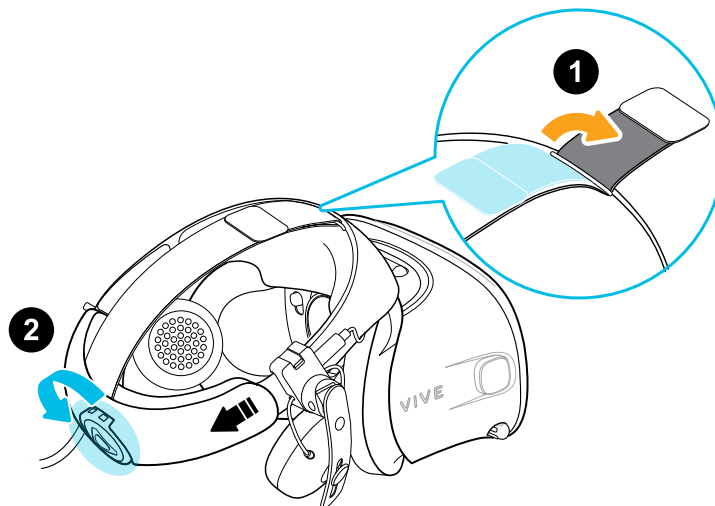
## Putting on the VIVE Cosmos headset

Before wearing the headset for the first time, make sure to do the following:

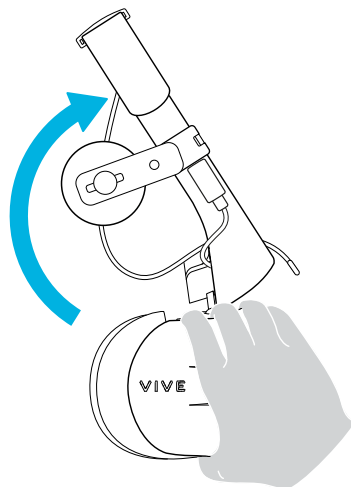


- Peel off the protective film on the lenses.
- Fully loosen the band and peel off the protective film starting from the left side of the band.

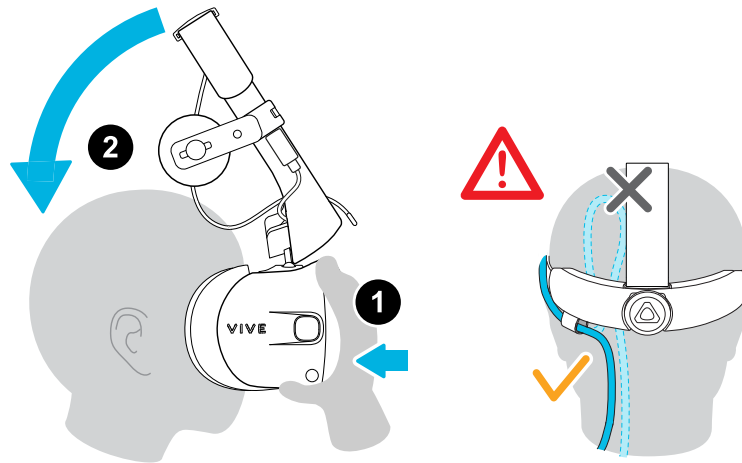
1. Detach the velcro fastener on the top strap, and then loosen the band by turning the adjustment dial counter-clockwise.



2. While holding the visor with one hand, pull up the band.



3. Hold the visor to your eyes. Adjust the position of the visor until you see a clear image inside the headset.

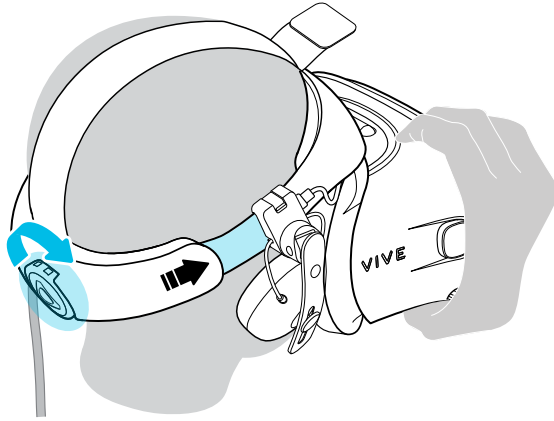


4. Pull down the headset band around the back of your head until you hear a click. The click indicates that the headset band has locked into place.

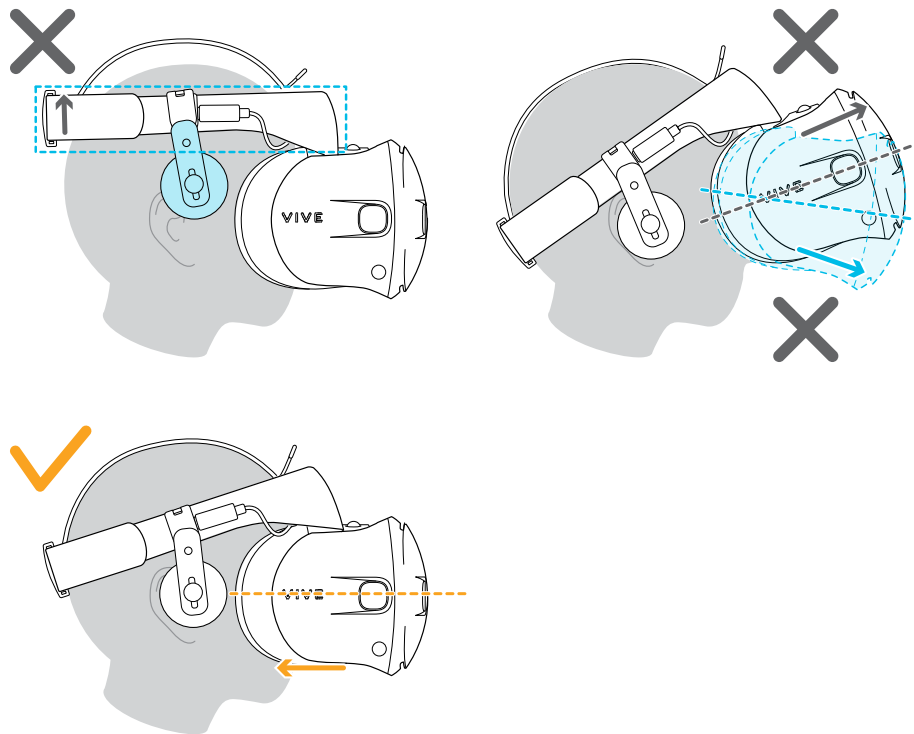


When you pull down the band, make sure the headset cable is not caught in between the band and your head. Let the headset cable run straight down your back.

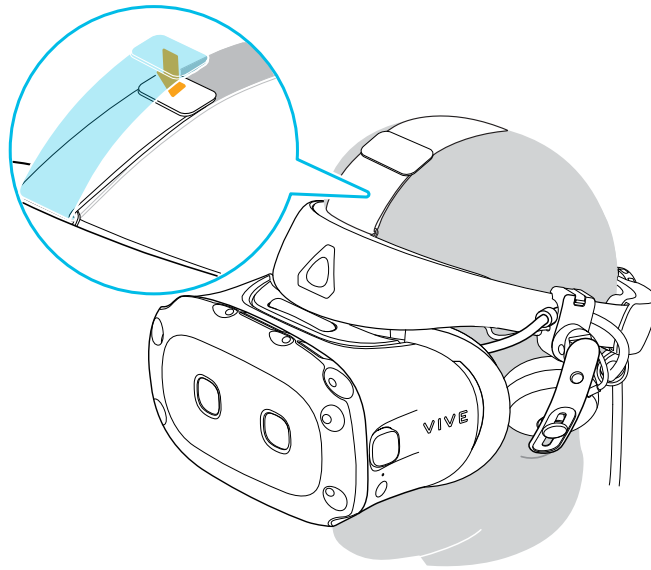
5. Turn the adjustment dial clockwise until the headset fits snugly.



Make sure the visor faces straight ahead. If the band sits too low or high on the back of your head, the visor will be tilted. It will also be difficult to position the on-ear headphones properly on your ears. If there's light leakage around the areas of your nose or cheeks, adjust the position of the band.



6. Adjust the top strap until snug, and then fasten the velcro strap.



If there's light leakage around the areas of your nose or cheeks, readjust the strap and reposition the band.

### Can I wear prescription glasses while using the headset?

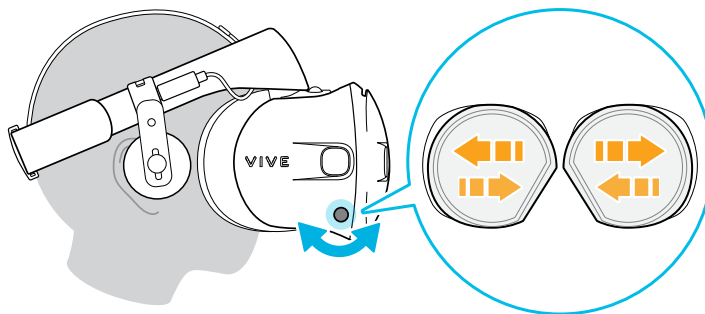
Most glasses fit inside the headset. Make sure that no part of your glasses scratch the headset lenses.

### Adjusting the IPD on the headset

Interpupillary distance (IPD) is the distance between the centers of your eyes.

If you don't know your IPD, see [How can I find my IPD?](#) on page 14. Use this measurement as a guide to adjust the distance between the lenses of the headset so that you'll have a better viewing experience.

To increase the distance between the lenses, rotate the IPD knob clockwise. To decrease, rotate the IPD knob counterclockwise.



As you adjust the IPD, you'll see a prompt indicating the current distance between the centers of the lenses.

## Why is accurate IPD important?

Accurate IPD settings help get a clear image and reduce eye strain.

The headset lenses focus images toward their optical center. This is sometimes called the "sweet spot" in the VR industry. By adjusting the IPD knob, you can tune the sweet spot for the most comfortable view. Misaligned IPD and improperly adjusted headsets are common causes of blurry images, dizziness, and eye strain.

## How can I find my IPD?

There are several ways to estimate your IPD.

The most accurate way to determine your IPD is to consult a professional optometrist or eye doctor. You can also estimate your IPD by doing any of the following:

- Use a ruler and a mirror. See below for detailed instructions.
- Through experimentation. See below for detailed instructions.
- Using third-party apps or websites.



Third-party apps or websites may collect personal data. HTC cannot guarantee accuracy of third-party apps or websites in measuring IPD.

## Estimating your IPD in a mirror

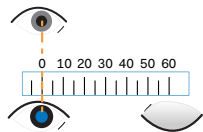
You can estimate your IPD with a ruler and mirror.

This method requires a millimeter ruler.

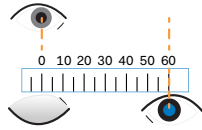
1. Stand directly in front of a mirror, and then hold the ruler up to your eyes. Make sure that the ruler is level. If you're using a flexible ruler, make sure not to bend it.



2. Align the zero mark with the center of your pupil. You may need to close your other eye to get a clear measure.



3. Check the millimeter mark on the other eye. You may need to close the first eye to get a clear measure.



4. Make a note of your IPD measurement. You may want to recheck several times to make sure your reading is accurate.



You can also ask a friend to help you measure instead of using a mirror. Make sure you're looking straight ahead while they measure.

### Estimating your IPD through experimentation

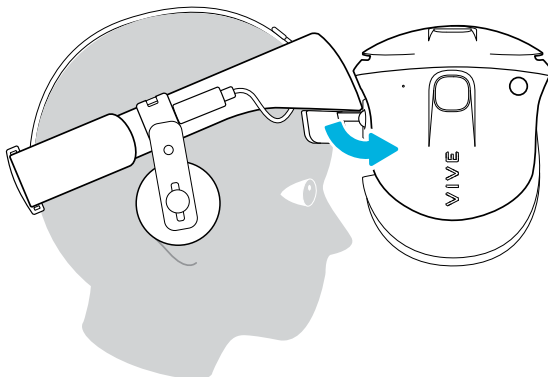
You can estimate IPD by trying different settings. This method is very convenient, but might be less accurate.

1. While wearing the VR headset, focus on text or lines at the center of view. If no text is present, open a screen in VR with text.
2. Adjust the IPD knob until the text is clear. Note the number for future use.
3. If the image in one eye is clearer than the other, adjust the headset position. Repeat until images are clear for both eyes.

### Flipping up the visor

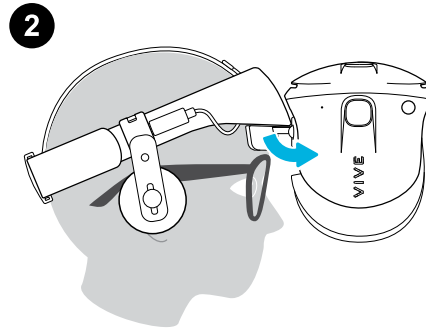
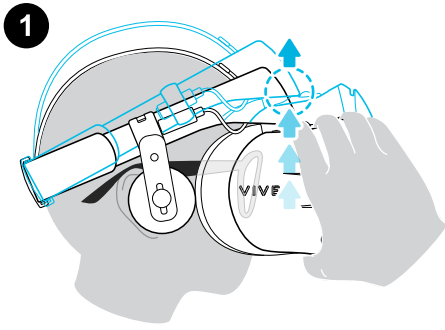
Take a break from VR to check your surroundings without having to take off your headset.

While wearing VIVE Cosmos, hold the visor with one or both hands, and then gently flip it up.



To return it to its original position, tilt the visor down until it completely covers your eyes.

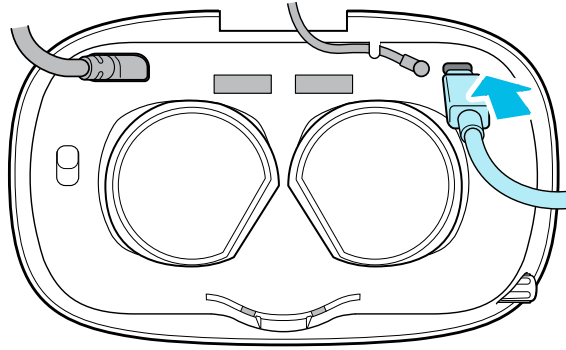
If you wear large glasses, you may need to adjust the headset to sit higher on your head when flipping the visor up or down.



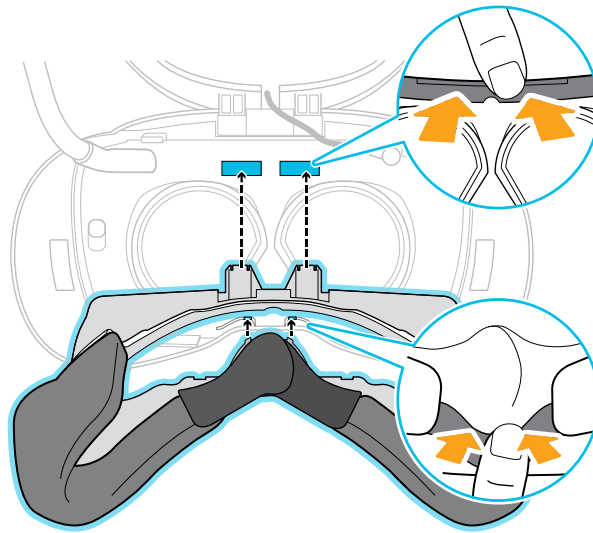




3. Insert the cable connector of the device into the USB Type-C port on the headset.



4. Align and push the tabs on the face cushion frame into their corresponding slots on the headset. Make sure to position the ridge of the face cushion frame below the headset, audio, and USB cables. You'll hear a click when the face cushion frame locks in place.



5. Connect the other end of the USB cable to USB Type-C device.



When using the VIVE Wireless Adapter, you won't be able to use the connected USB device. This is normal.

For a better experience with the VIVE Wireless Adapter, the USB Type-C port on VIVE Cosmos is disabled when you're using the headset with the wireless adapter.

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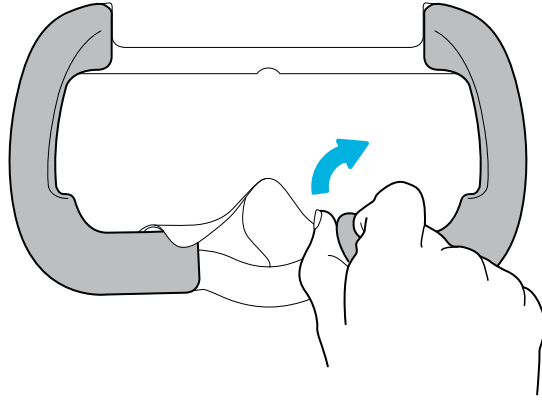
## Removing or reattaching the face cushions

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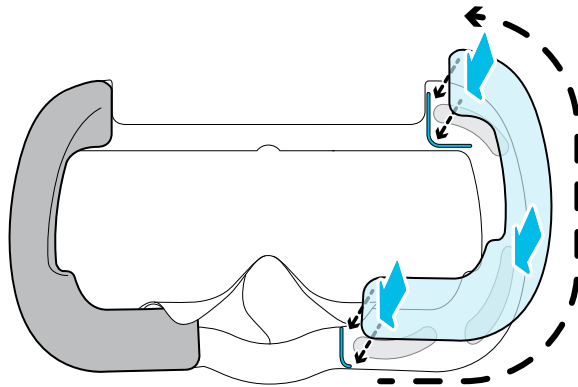
Remove the face cushions when you need to access the compartment or clean the cushions.

To find out how to clean the cushion, see [Cleaning the face cushions](#) on page 26.

- To remove the face cushions, gently peel starting from the bottom ends of each face cushion until they detach from the face cushion frame.



- To reattach, align one end of the face cushion with the marker on the bottom part of the face cushion frame. Press down the face cushion against the outline of the frame, and then check that the other end of the face cushion lines up with the marker on the top part of the frame.



Make sure that the velcro and adhesive strips attach firmly.

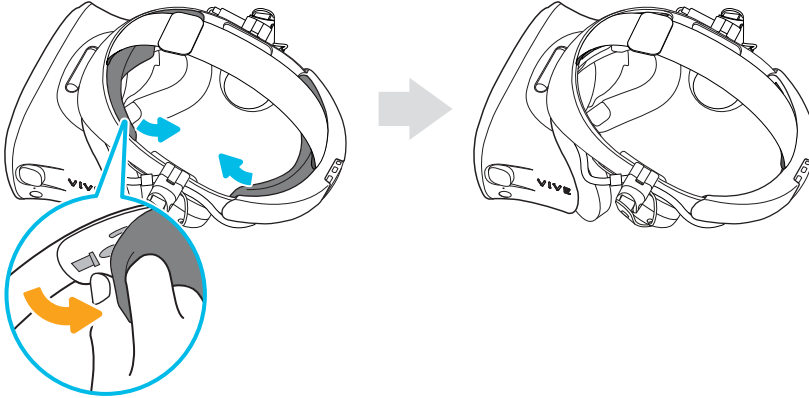
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## Removing the front and back pads

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You can remove the front and back pads from the headset band for cleaning.

To remove the front and back pads, peel starting from the ends of each pad until they detach from the headset band.



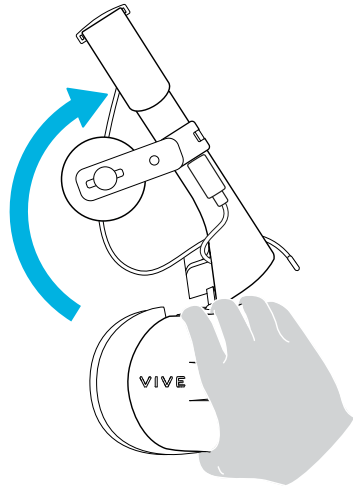
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## Reattaching the front and back pads to the headset

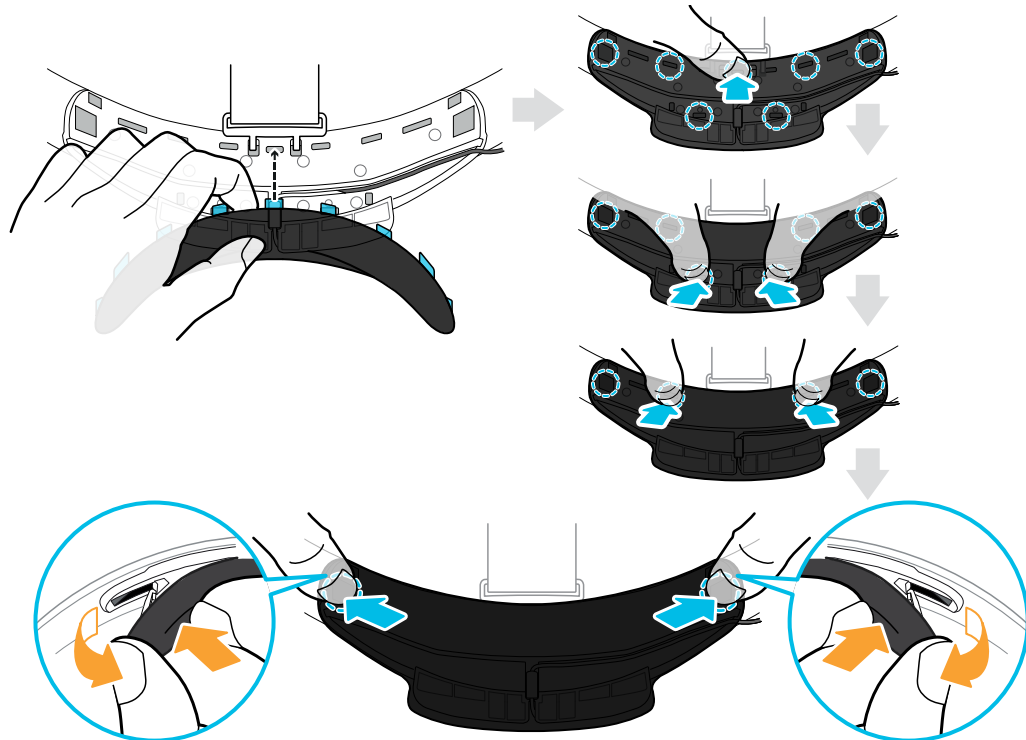
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Always make sure that the front and back pads are attached to the headset.

1. While holding the visor with one hand, pull up the band.



2. Starting from the middle, align the front pad tabs with their corresponding slots on the band, and then press along the front pad. You may need to gently bend the ends of the front pad to align the outermost tabs with the slots on the band.



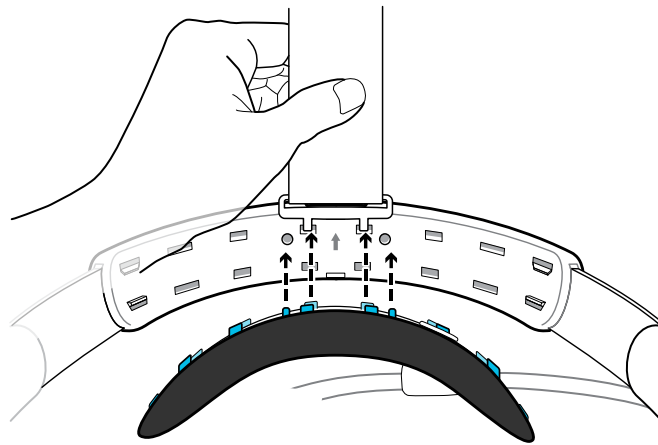
Make sure to minimize the gap between the pad and the band and that all tabs are fully locked into place.

3. Align the back pad tabs with their corresponding slots on the band, and then press along the back pad to reattach.



Check that the headset cable strip is properly attached. For details, see [Reattaching the headset cable strip to the back pad](#) on page 23.

You'll hear a click when the tabs are inserted.



Make sure to minimize the gap between the pad and the band.

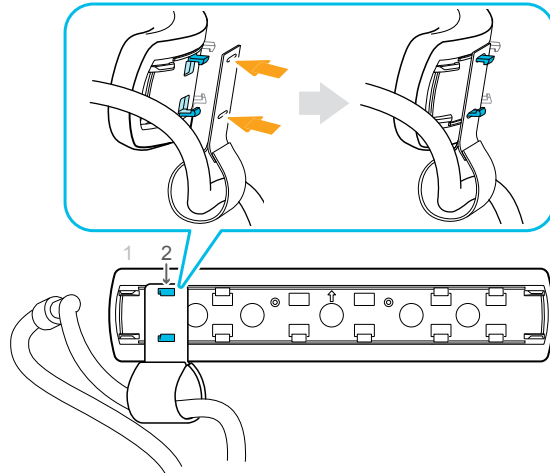
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## Reattaching the headset cable strip to the back pad

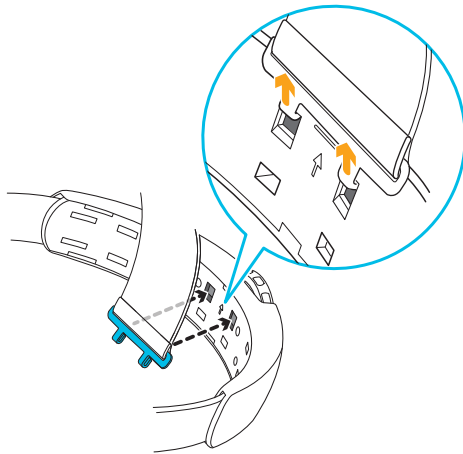
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The fabric strip guides the headset cable, and is inserted on the back pad.

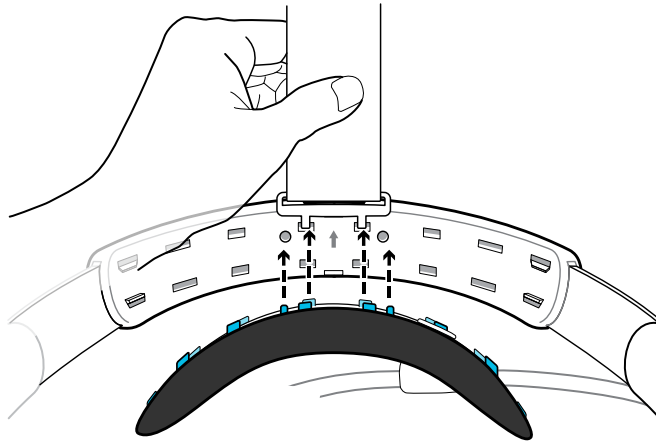
1. Insert the back pad tabs second to the left-most corner tabs into the holes of the headset cable strip with its flap down. Make sure that the strip is firmly attached.



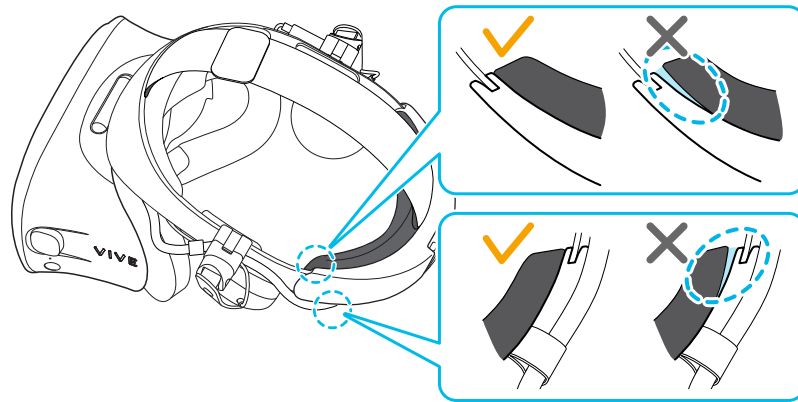
2. Reattach the top strap to the headset band. For details, see [Attaching the top strap to the headset band](#) on page 25.



3. Align the back pad tabs with their corresponding slots on the band, and then press along the back pad to reattach. You'll hear a click when the tabs are inserted.



4. Make sure to minimize the gap between the pad and the band.



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### Detaching the top strap from the headset band

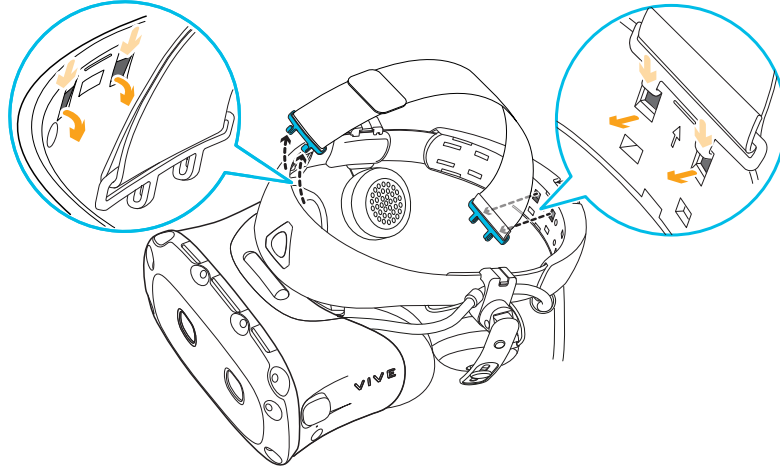
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If you want to, you can detach the top strap from the headset band of VIVE Cosmos.

1. Remove the front and back pads from the headset. To find out how, see [Removing the front and back pads](#) on page 20.
2. Starting from the rear of the headset band, pull down the strap to unhook it.



3. On the other end of the strap, pull down and out the strap to unhook it.



4. Reattach the front and back pads to the headset. To find out how, see [Reattaching the front and back pads to the headset](#) on page 21.

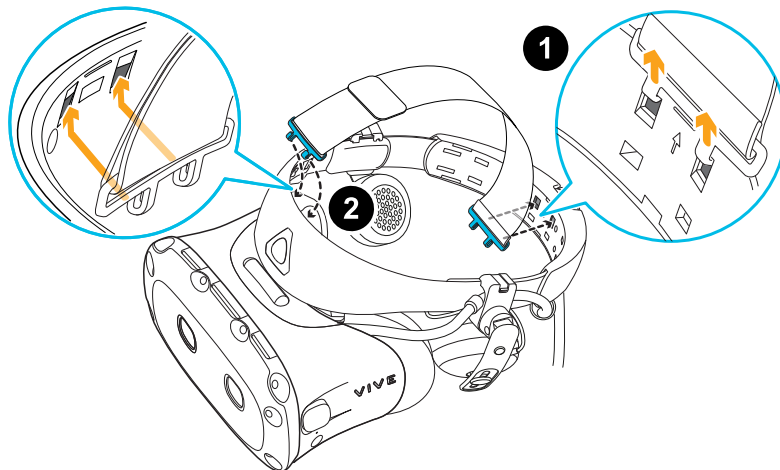
### Attaching the top strap to the headset band

For added comfort, attach the top strap before wearing the headset. You can adjust the top strap by using the velcro strip.



You'll need to first remove the front and back pads on the headset. For details, see [Removing the front and back pads](#) on page 20.

1. Grab the new top strap from the VIVE Cosmos External Tracking Faceplate box.
2. Starting from the rear of the headset band, align the hooks of the top strap (side without the clasp) to its corresponding slots. Gently pull up the strap to hook into place.
3. Align and insert the hooks on the other end of the top strap with the inner slots of the headset band, and then pull up on the strap to hook into place.



4. Reattach the front and back pads to the headset. For details, see [Reattaching the front and back pads to the headset](#) on page 21.

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## Cleaning the headset lenses

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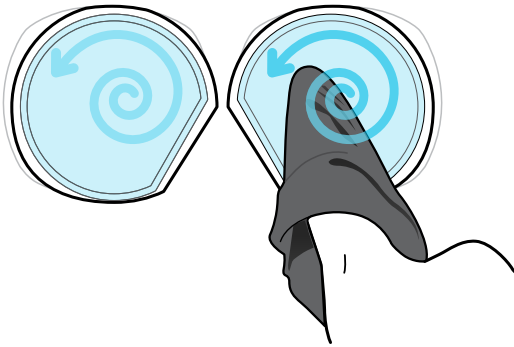
Use the cleaning cloth provided in the box to wipe the headset lenses.



Make sure the cloth is dry before using it to clean the lenses.

Wipe in a circular motion from the center to the outer edges of the lenses.

While cleaning the lenses, do not scratch the lenses nor disassemble other parts of the headset.



You can also use an air pump to blow away dust and particles from the headset lenses.

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## Cleaning the face cushions

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Before cleaning the face cushions, remove it first from the VIVE Cosmos headset.

When cleaning the face cushions, remember to:

- Dampen a clean smooth cloth with cold water and gently wipe the area you want to clean.
- Air dry at room temperature. Don't tumble dry, iron, or expose it to direct sunlight.
- Don't scrub, wring, or bleach.
- Don't dip or soak in water.



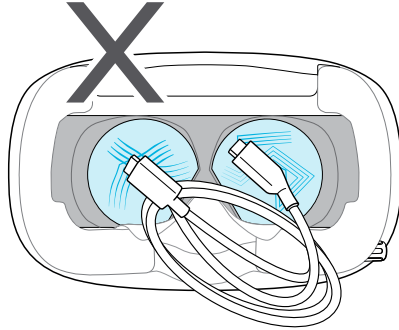
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## Caring for your VIVE Cosmos

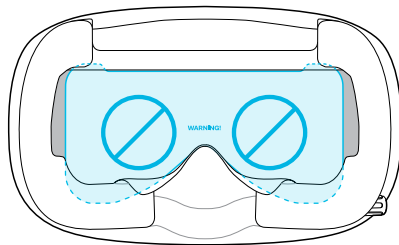
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Here are some tips to help protect your VIVE Cosmos headset from scratches or damage.

- Keep the headset lenses away from sharp objects, including cable tips. This will prevent the headset lenses from being scratched.



- When not in use, store the headset in a cool, dark, and low humidity environment.
- When not in use, store the headset with the lenses pointed away from direct sunlight. Failure to do so may damage the headset display.
- When storing the headset, it is recommended to cover the lenses with the paper cover to help prevent accidental scratches.



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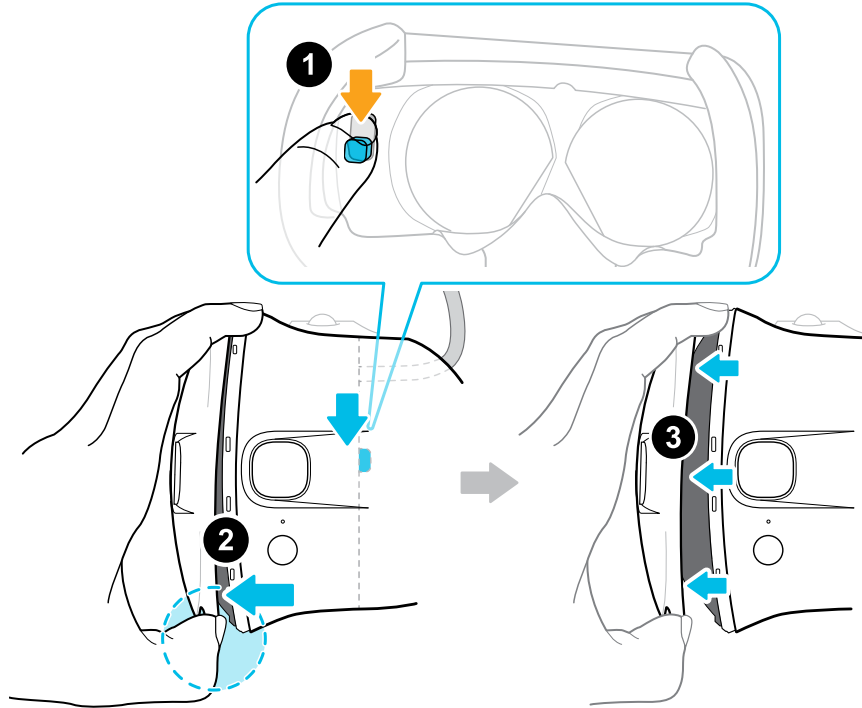
## Installing the VIVE Cosmos External Tracking Faceplate

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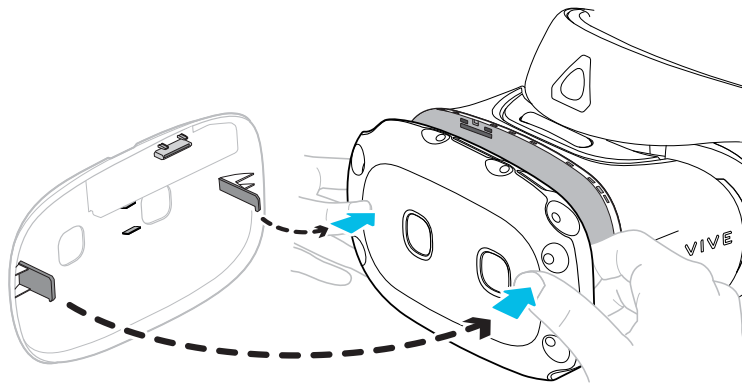
Replace the front cover on the headset with the VIVE Cosmos External Tracking Faceplate.

1. Slide down and hold the lock button inside the compartment to unlatch the front cover.
2. Pry open the front cover starting from the bottom right corner with the visor facing you.

3. Carefully pull out the front cover until it detaches from the visor.

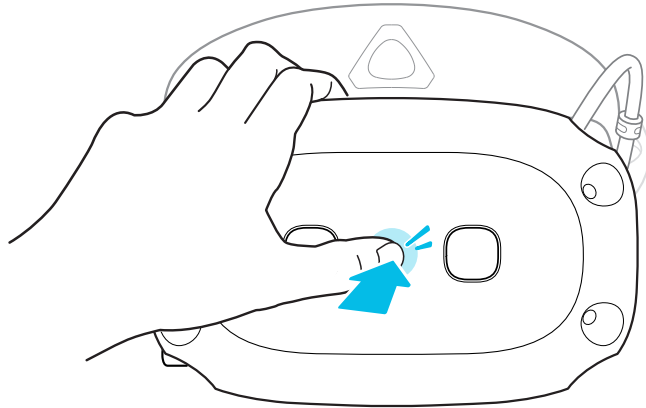


4. Grab the VIVE Cosmos External Tracking Faceplate from the box.
5. Insert the tabs on the front cover into the slots on the visor.

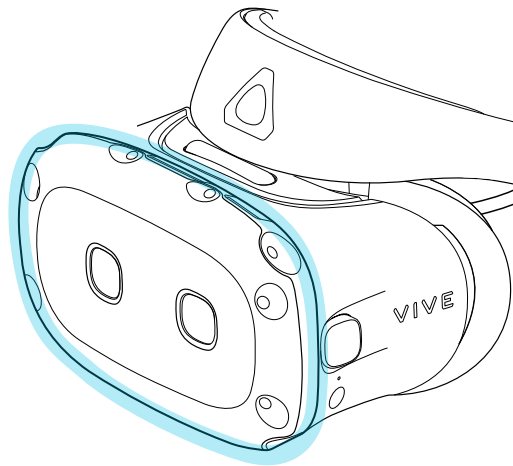


6. Press the right side of the front cover first, and then press the left side of the front cover.

7. With the front cover attached to the visor, press the center of the front cover.

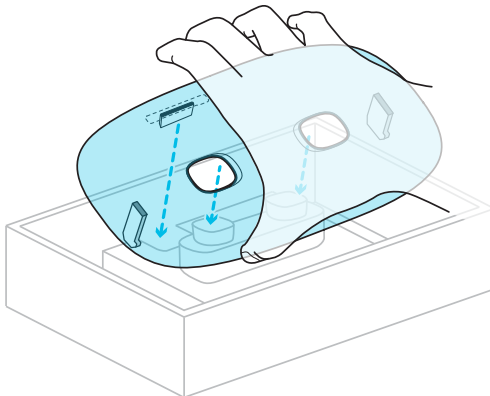


8. Make sure to minimize the gap between the VIVE Cosmos External Tracking Faceplate and the visor, and that all tabs are fully locked into place.



You'll hear a click when the VIVE Cosmos External Tracking Faceplate locks in place.

Place the original front cover inside the VIVE Cosmos External Tracking Faceplate box for safekeeping.



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## What does the status light on the headset mean?

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The status light on the headset turns green or red when one of the following occurs:

- Green when the headset is in normal mode
- Dim green when the headset is on standby
- Red when the headset is in sleep mode

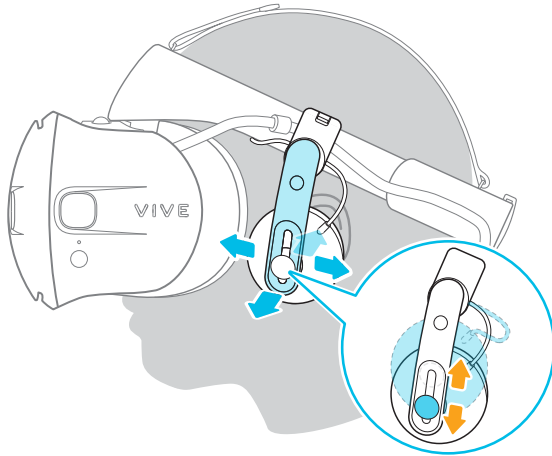
## Headphones

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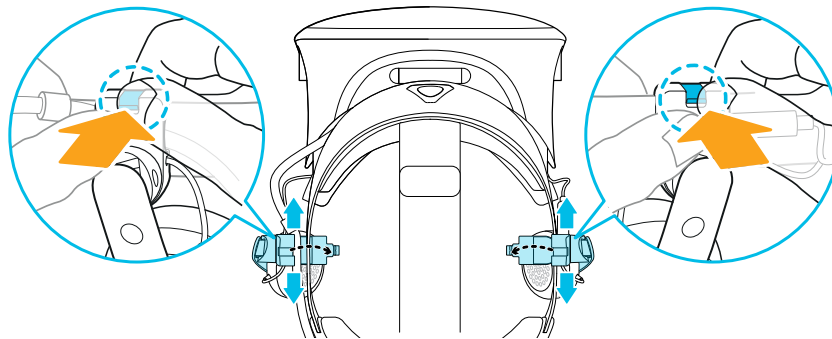
### Adjusting the fit of the on-ear headphones

---

While wearing the VIVE Cosmos headset, adjust the on-ear headphones to a comfortable position over your ears, then press the headphones into place.



Is the fit too loose or tight? In case you feel pressure around your temples, adjust the position of the on-ear headphones for a more comfortable fit. To do so, flip open the metal clasp on each headphone and reposition the headphone clip on the headset band.



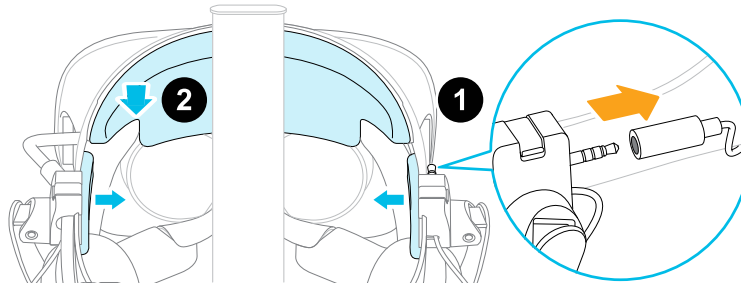
## Detaching the on-ear headphones from the headset band



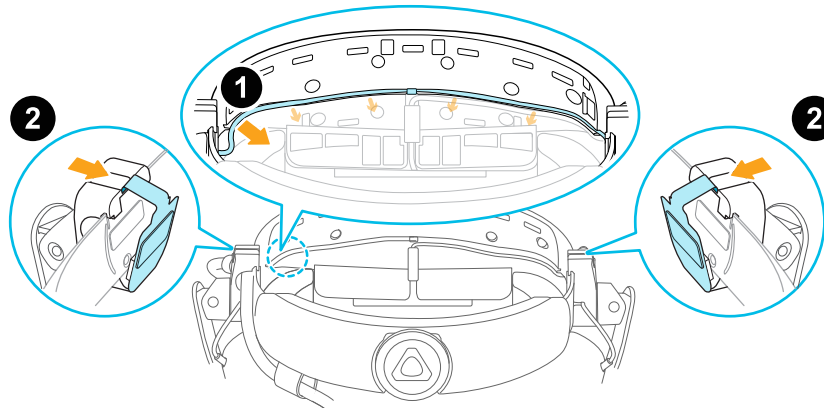
To use your own headphones with VIVE Cosmos, you'll need the replacement kit for headphones. For details on how to get the kit, contact [Customer Care](#).

Before using your own earphones, you first need to detach the on-ear headphones from the headset band.

1. On the right side of the band, disconnect the audio plug from the audio cable connector.
2. Remove the side cushions and front pad from the headset band. For details, see [Removing the front and back pads](#) on page 20.



3. On the front section of the band, carefully pull out the cable of the on-ear headphones from the groove.
4. On the left and right sides of the band, flip open the metal clasp of each headphone to detach it.



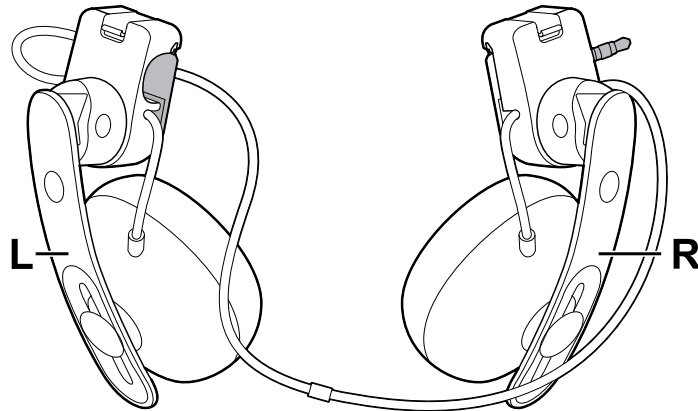
After detaching the on-ear headphones, you need to attach cable guides before plugging in your own earphones. For details, see [Attaching the cable guides to the headset band](#) on page 40.

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## Reattaching the on-ear headphones to the headset band

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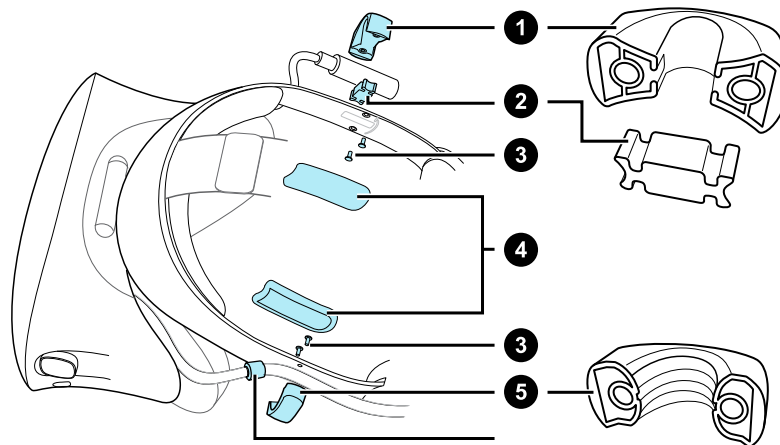
You can reattach the on-ear headphones if you've used your own earphones with VIVE Cosmos.



Before attaching the on-ear headphones to the headset band, do the following:

1. Remove the cable guides, screws, and rubber pad, which are part of the replacement kit for earphones, as well as the side cushions from the headset band. For details, see [Detaching the cable guides from the headset band](#) on page 41.

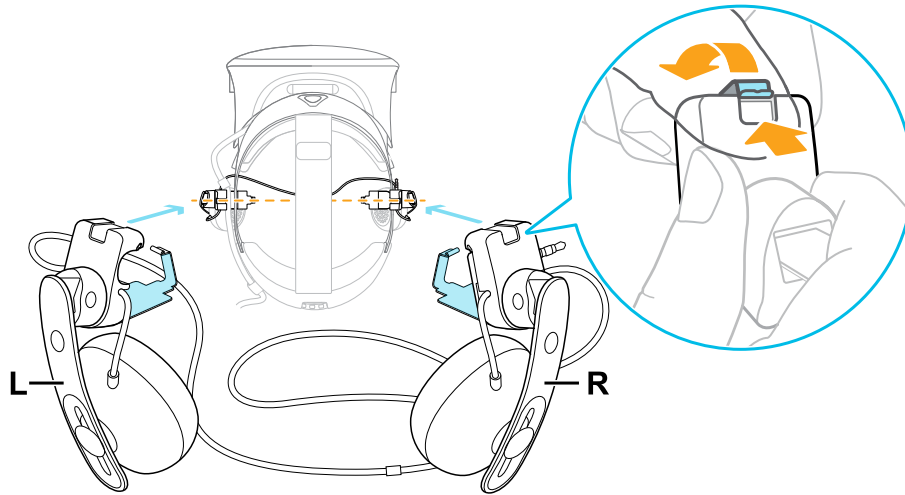
Use a cross-shaped screwdriver (PH00) to detach the screws. Make sure to keep these parts in a safe place.





1. Audio cable guide
2. Rubber pad
3. Screws
4. Side cushions
5. Headset cable guide
6. Cable stopper

2. Flip open the metal clasps on the left and right on-ear headphones.

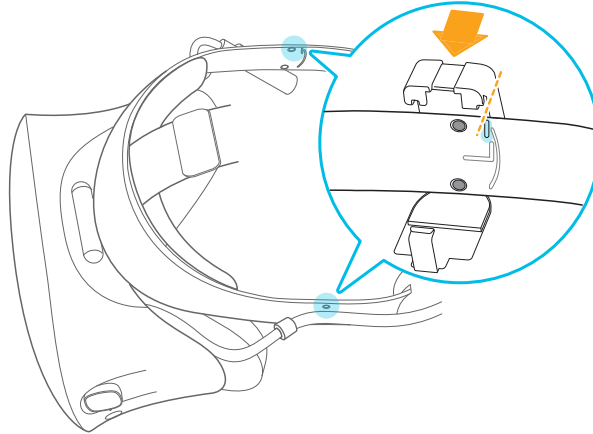


## Attaching the right on-ear headphone

Attach the right headphone with the audio plug to the right side of the headset band.

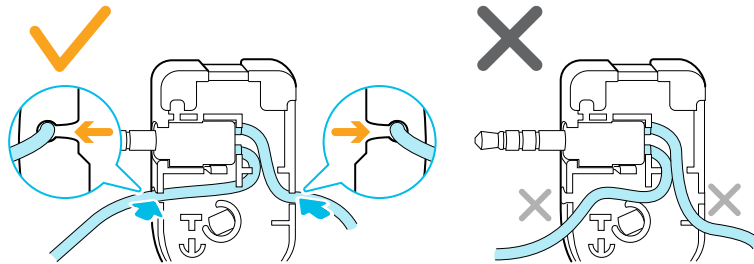
1. Hook the headphone clip over the top of the band.

The screw holes and line marker on the band are helpful guides for positioning the clip.

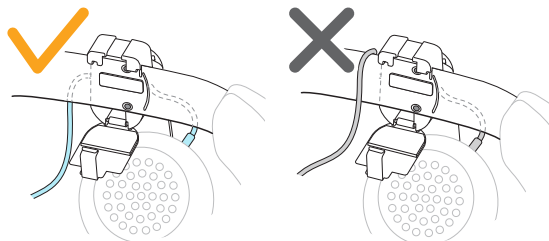


While the clasp is loose, you can reposition the headphone clip for a more comfortable fit. Just make sure that the other clip is similarly placed on its side of the band.

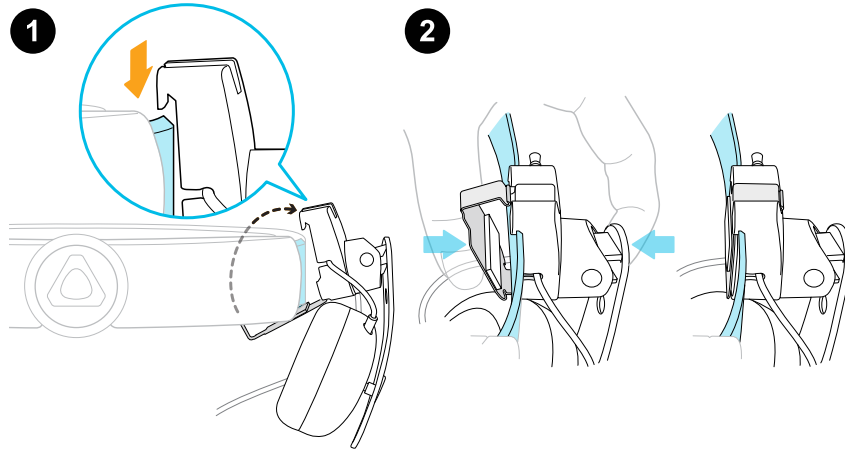
2. Make sure the audio cable is firmly pressed and not falling out of the groove.



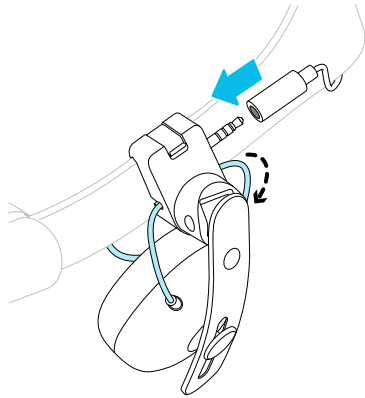
3. Make sure the audio cable runs under the band, and not over the top. Check that it isn't also wedged between the clip and the band.



4. Close the clasp around the band, and then snap into place.



5. Connect the audio cable connector to the headphone plug.

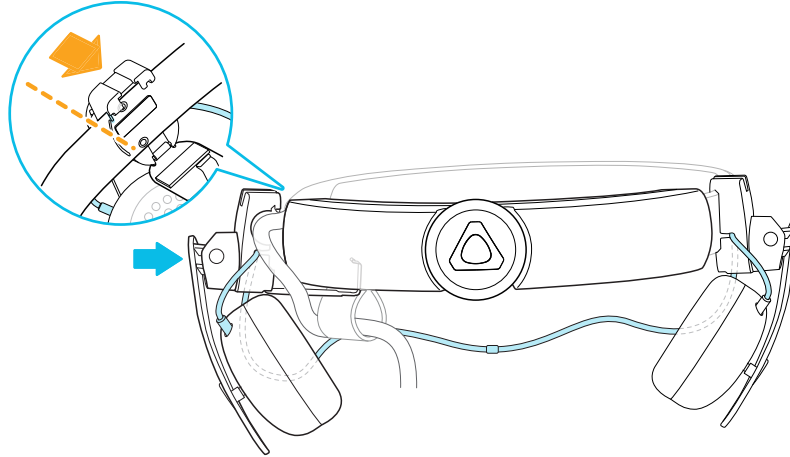


## Attaching the left on-ear headphone

Attach the left headphone to the left side of the headset band.

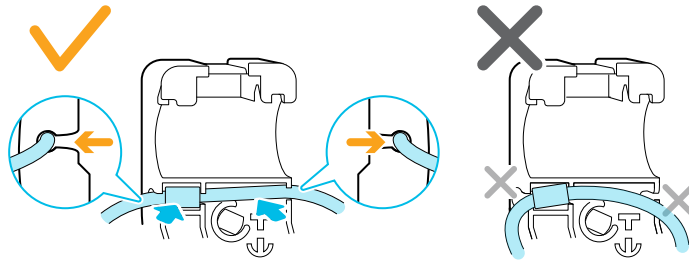
1. Pin the headset cable along the cable guide on the left headphone.
2. Hook the headphone clip over the top of the band.

The screw holes and line marker on the band are helpful guides for positioning the clip.

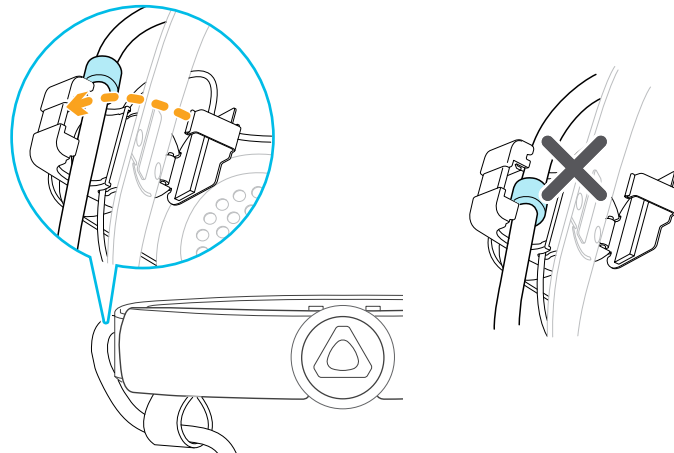


While the clasp is loose, you can reposition the headphone clip for a more comfortable fit. Make sure that the other clip is similarly placed on its side of the band.

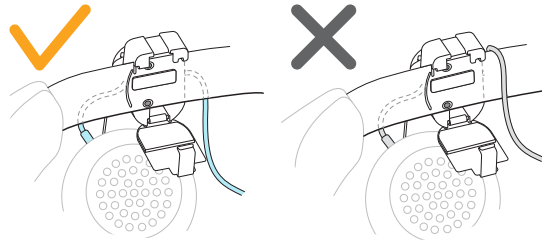
3. Make sure the audio cable is firmly pressed in place and not falling out of the groove.



4. Make sure that the stopper on the headset cable isn't caught in the clasp, and is on the visor side to prevent damage to the visor while gaming.



5. Make sure the audio cable runs under the band, and not over the top. Check that it isn't also wedged between the clip and the band.

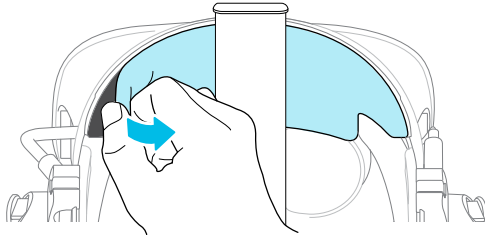


6. Close the clasp around the band and snap into place.

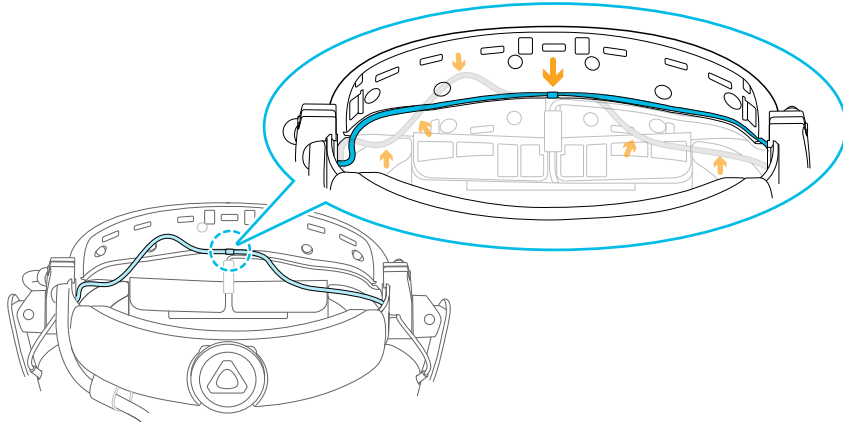
## Attaching the headphone audio cable

After the left and right on-ear headphones have been attached, attach the headphone audio cable to the headset band.

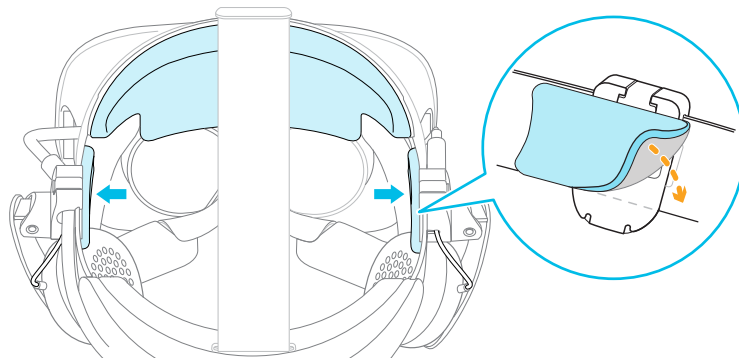
1. Remove the front pad from the headset band. For details, see [Removing the front and back pads](#) on page 20.



2. On the front section of the band, press the audio cable marker into the slot at the center. Then press the cable along the groove until flush with the band.



3. Reattach the front pad and side cushions to the headset band. Make sure that the side cushions cover the metal clasps on the band.



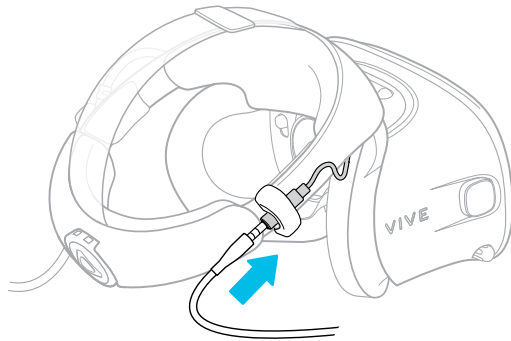
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## Plugging in your earphones

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You'll need the replacement kit for earphones to connect your own earphones to the headset. Contact [Customer Care](#) to find out how to purchase the kit.

1. Detach the on-ear headphones. For details, see [Detaching the on-ear headphones from the headset band](#) on page 31.
2. Attach the cable guides to the headset band. For details, see [Attaching the cable guides to the headset band](#) on page 40.
3. Insert the earphone plug into the 3.5mm audio cable connector on the right side of the headset band.



## Attaching the cable guides to the headset band



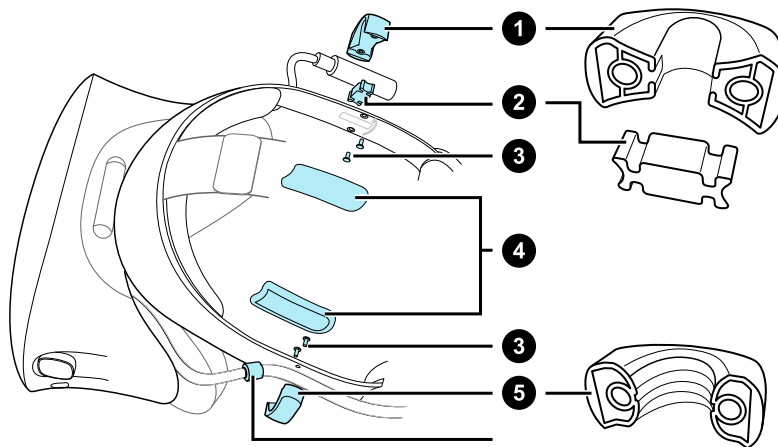
To use your own headphones with VIVE Cosmos, you'll need the replacement kit for headphones. For details on how to get the kit, contact [Customer Care](#).

Before plugging in your earphones, attach the audio cable guide and headset cable guide to the headset band.



The cable guides are included in the replacement kit for earphones. Before you attach the cable guides, make sure to remove the on-ear headphones from the headset band, including the front pad and side cushions. For details, see [Detaching the on-ear headphones from the headset band](#) on page 31.

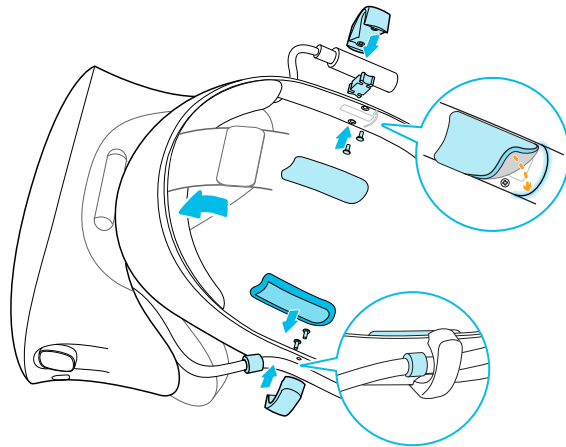
Use a cross-shaped screwdriver (PH00) to attach the screws.



1. Audio cable guide
2. Rubber pad
3. Screws
4. Side cushions
5. Headset cable guide
6. Cable stopper

1. On the right side of the band, place the audio connector between the rubber pad and audio cable guide. Align the holes on the band, rubber pad, and audio cable guide, and then screw in place.
2. On the left side of the band, align the headset cable guide holes with the holes on the band, then screw in place. Make sure that the headset cable passes through the headset cable guide. The stopper on the headset cable must also be placed on the visor side of the cable guide.
3. Reattach the front pad and side cushions to the headset band. Make sure that each side cushion is aligned with the curvature on the band.





After attaching the cable guides, you can now plug in the earphones. For details, see [Plugging in your earphones](#) on page 39.

### Detaching the cable guides from the headset band

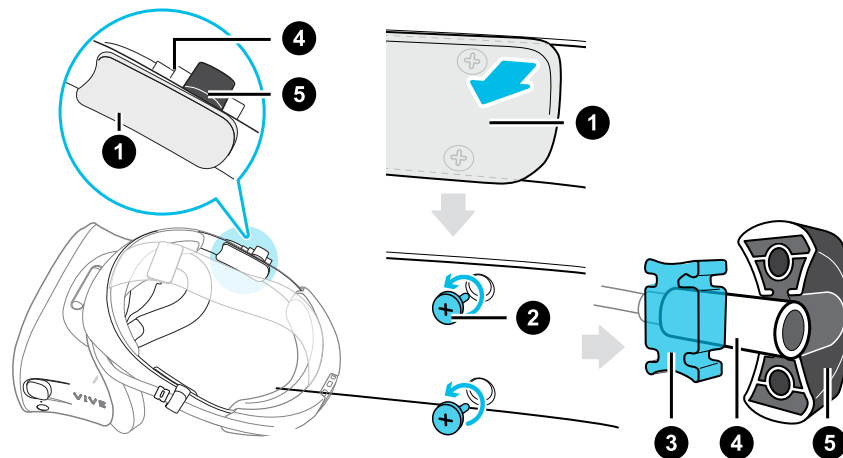
If you want to reattach the on-ear headphones, you first need to detach the audio cable guide and headset cable guide from the headset band. The cable guides are included in the replacement kit for earphones. For details on how to order the replacement kit for earphones, contact [Customer Care](#).

Make sure to keep these parts in a safe place.

### Detaching the audio cable guide

You can remove the audio cable guide from the right side of the band.

1. Remove the side cushion.
2. Remove the screws using a cross-shaped screwdriver (PH00).
3. Remove the rubber pad that holds the audio cable connector against the audio cable guide.

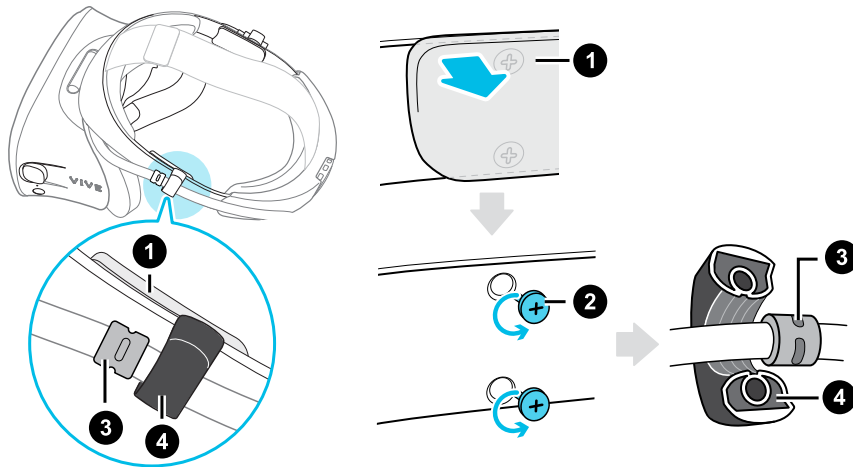


1. Side cushion
2. Screws
3. Rubber pad
4. Audio connector
5. Audio cable guide

## Detaching the headset cable guide

You can remove the headset cable guide from the left side of the band

1. Remove the side cushion.
2. Remove the screws using a cross-shaped screwdriver (PH00).
3. Detach the headset cable guide.



1. Side cushion
2. Screws
3. Cable stopper
4. Headset cable guide

## Common solutions

### I can't place the on-ear headphones on my ears.

You can move the position of the headphones along the headset band so they can be placed on your ears.

Flip open the metal clasp on each headphone and reposition it on the headset band. See [Adjusting the fit of the on-ear headphones](#) on page 30 for more details.



You can also try adjusting the top strap and headset band so that you can position the on-ear headphones properly on your ears. See [Putting on the VIVE Cosmos headset](#) on page 10 for details.

---

### I can't hear anything from the headphones. What can I do?

---

If there is no sound coming out of the headphones, go through the list below and see if it fixes the problem.

Check the following:

- Make sure the headphones are plugged into the 3.5mm audio cable connector of the headset.
- The volume level is not 0. See [System Dashboard](#) on page 71.
- Make sure the USB cable is connected to a USB 3.0 or higher port on your computer. If the USB cable is connected to a lower-speed USB port, move and plug it to a USB 3.0 or higher port. Restart the computer and link box.
- If the USB cable is already connected to a USB 3.0 or higher port on your computer, try switching to a different USB 3.0 or higher port. After switching, restart the computer and link box.

---

### Can I use VIVE Cosmos when SteamVR is in Safe mode?

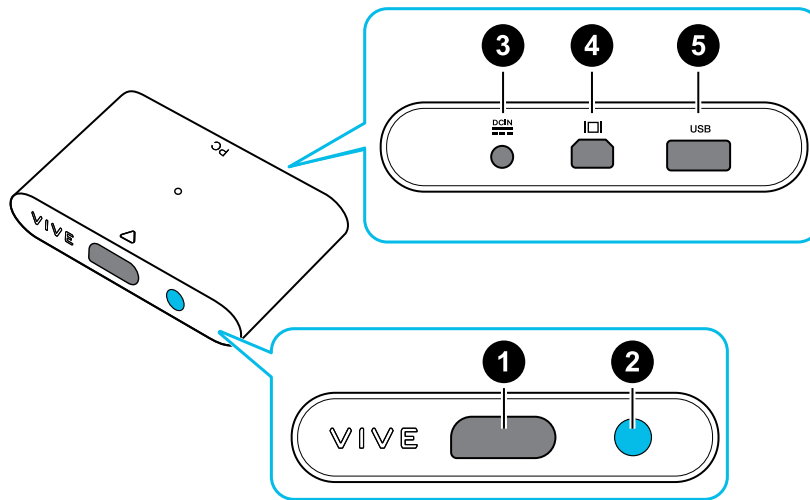
---

No, you cannot. Make sure that SteamVR is not running in Safe mode before using VIVE Cosmos.

# Link box

## Connecting the headset to your computer via the link box

Use the link box to connect your VIVE Cosmos headset to your computer.



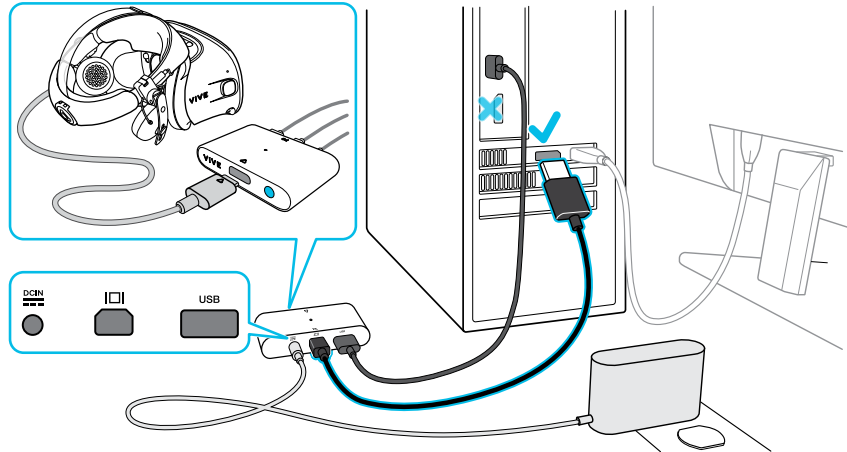
1	Headset cable port
2	Power button
3	Power port
4	DisplayPort™ port
5	USB 3.0 port

1. Connect the DisplayPort cable, USB 3.0 cable, and power adapter cable on their corresponding ports on the link box.
2. Plug the power adapter into an electrical outlet.
3. Connect the other end of the USB 3.0 cable on a USB 3.0 port on your computer.
4. Connect the other end of the DisplayPort cable to the DisplayPort port on the graphics card of your computer where the monitor is also connected. Do not connect the DisplayPort cable to ports on the motherboard.

5. Insert the headset cable connector (side with triangle mark up) to the port on the link box with the corresponding triangle mark.

**!** Make sure the link box is off before inserting the headset cable connector. Inserting the headset cable connector while the link box is on may damage the link box.

6. Press the Power button to turn the link box on.



## Restarting the link box

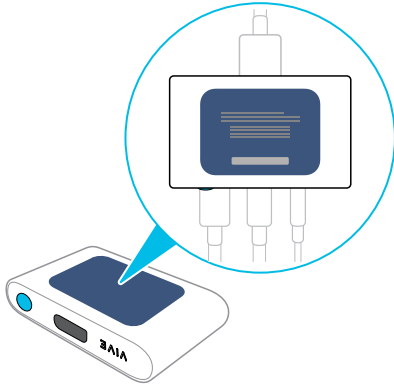
If you need to restart the VIVE Cosmos link box, follow the steps below.

1. Close the VIVE Console app as well as SteamVR app on your computer.
2. Press the Power button to turn the link box off, and then press the Power button again to turn it back on. On your computer, you might see a notification that drivers are being installed. Wait for the installation to finish.
3. To verify that VIVE hardware is detected, restart the VIVE Console app on your computer.

## Can I use older versions of the link box with VIVE Cosmos?

To avoid hardware compatibility issues, use only the link box and power adapter that came with your VIVE Cosmos.

To check if the link box is for VIVE Cosmos, flip over the link box and check if the label is blue.



### Can I use my laptop with VIVE Cosmos?

Yes, as long as your laptop meets the system requirements for VIVE Cosmos.

If your laptop does not have a DisplayPort port but has a Mini DisplayPort port instead, you can use a Mini DisplayPort-to-DisplayPort adapter. If you require one, contact [Customer Care](#).



A Mini DisplayPort-to-DisplayPort adapter may block another port on your laptop.

### My PC and headset are on, but why can't I see anything?

Try disconnecting the headset from the link box and then reconnect it. See if this solves the problem.

1. Disconnect the headset cable from the link box.
2. Restart your computer.
3. Reconnect the headset cable to the link box.

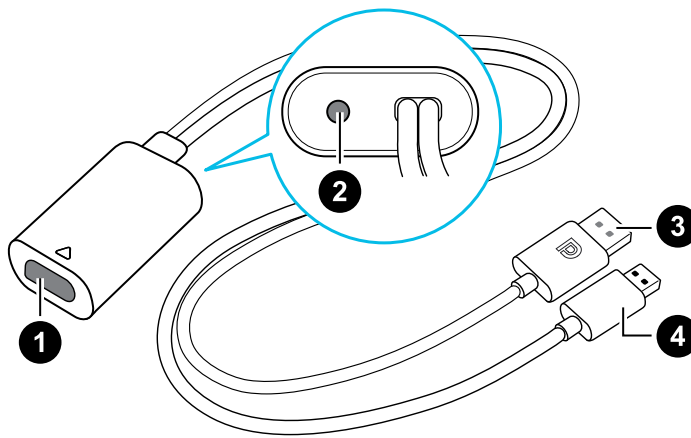
# Converter

## Connecting the headset to your computer via the converter

Use the converter to connect the VIVE Cosmos headset to your computer.



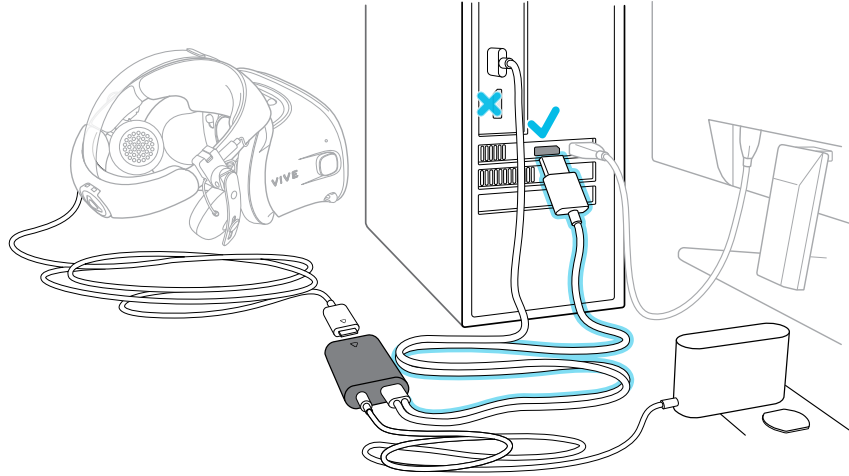
If your VIVE Cosmos originally came with the link box, you can replace the link box with the converter when it becomes available.



- |   |                    |
|---|--------------------|
| 1 | Headset cable port |
| 2 | Power port         |
| 3 | DisplayPort cable  |
| 4 | USB 3.0 cable      |

1. Connect the power adapter cable to its corresponding port on the converter for VIVE Cosmos.
2. Plug the power adapter into an electrical outlet.
3. Connect the opposite end of the USB 3.0 cable to a USB 3.0 port on your computer.

4. Connect the other end of the DisplayPort cable to the DisplayPort port on the graphics card of your computer where the monitor is also connected. Do not connect the DisplayPort cable to ports on the motherboard.
5. Insert the headset cable connector (side with triangle mark up) to the port on the converter with the corresponding triangle mark.



## Restarting the converter

If you need to restart the VIVE Cosmos converter, follow the steps below.



If your VIVE Cosmos originally came with the link box, you can replace the link box with the converter when it becomes available.

1. Close the VIVE Console app as well as SteamVR app on your computer.
2. Unplug the power cable from the converter.
3. Wait for a few seconds, and then plug the power cable back in. On your computer, you might see a notification that drivers are being installed. Wait for the installation to finish.
4. To verify that VIVE hardware are detected, restart the VIVE Console app on your computer.



### **Can I use a laptop with VIVE Cosmos?**

As long as your laptop meets the system requirements, you can use it with VIVE Cosmos.

If your laptop does not have a DisplayPort port but has a Mini DisplayPort port instead, you can use a Mini DisplayPort-to-DisplayPort adapter. If you require one, contact [Customer Care](#).



A Mini DisplayPort-to-DisplayPort adapter may block another port on your laptop.

### **My headset and PC are on, but why can't I see anything?**

Try disconnecting the headset from the converter and then reconnect it. See if this solves the problem.

- 1.** Disconnect the headset cable from the converter.
- 2.** Restart your computer.
- 3.** Reconnect the headset cable to the converter.

# Base stations

## About the VIVE base stations

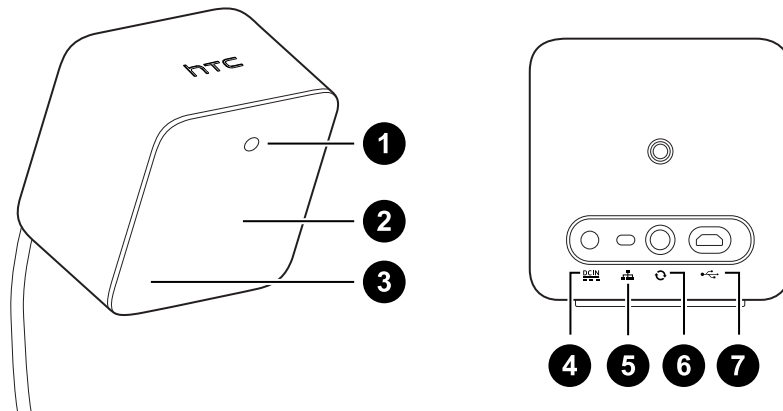


The hardware may be purchased separately from the Accessories tab on [www.vive.com/product/](http://www.vive.com/product/).

VIVE Cosmos comes with two VIVE Base Station 1.0 out of the box. Your headset and controllers use them for tracking.



- The base stations beam signals to the headset and controllers. Do not cover the front panel with any material.
- When the base stations are turned on, they may affect some nearby infrared sensors, such as those used by an IR TV remote control.



1	Status light
2	Front panel
3	Channel indicator (recessed)
4	Power port
5	Channel button
6	Sync cable port (optional)
7	Micro-USB port (for firmware updates)



- Do not attempt to pry open the base stations as doing so could injure you or damage the product.
- If the front panel is cracked or damaged, stop using the base stations.

## Installing the base stations



The hardware may be purchased separately from the Accessories tab on [www.vive.com/product/](http://www.vive.com/product/).

Before installing the base stations, decide first whether you want to set up a room-scale or seated/standing-only play area. See [Planning your play area](#) on page 65.



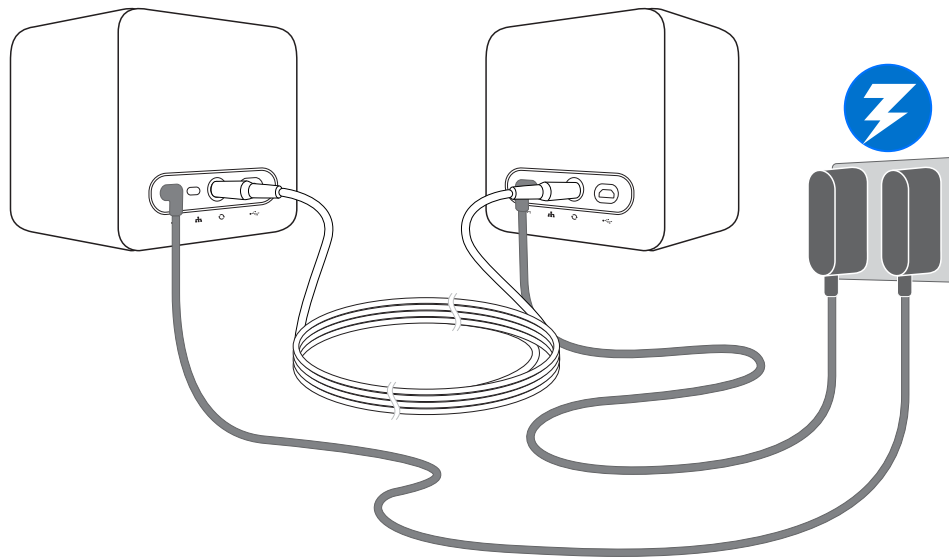
During unboxing, remove the thin film that covers the front panel of the base stations.

1. Mount the base stations diagonally at opposite corners of your space.  
For details on how to use the mounting kit, see [Using the mounting kit](#) on page 54.  
You can also use tripods, light stands, or cargo poles when mounting the base stations, or even place it on stable book cases. Just avoid using unstable mounting solutions or surfaces that are prone to vibration.
2. Adjust the base stations so that the front panels are facing toward the center of the play area.
3. Attach the power cables to the base stations, and then plug them each into a power outlet to turn them on. The status lights should be green.
4. Connect the base stations and set the channels.



For details on how to get the sync cable, contact customer care.

<b>Without the sync cable</b>	Press the Channel buttons at the back of the base stations so that one base station is set to channel “b”, while the other is set to channel “c”.
<b>With the sync cable (optional for added reliability)</b>	Press the Channel buttons at the back of the base stations so that one base station is set to channel “A”, while the other is set to channel “b”.



Once turned on, do not move or adjust the angles of the base stations as it could disrupt the tracking process. Otherwise, you will need to set up the play area again.

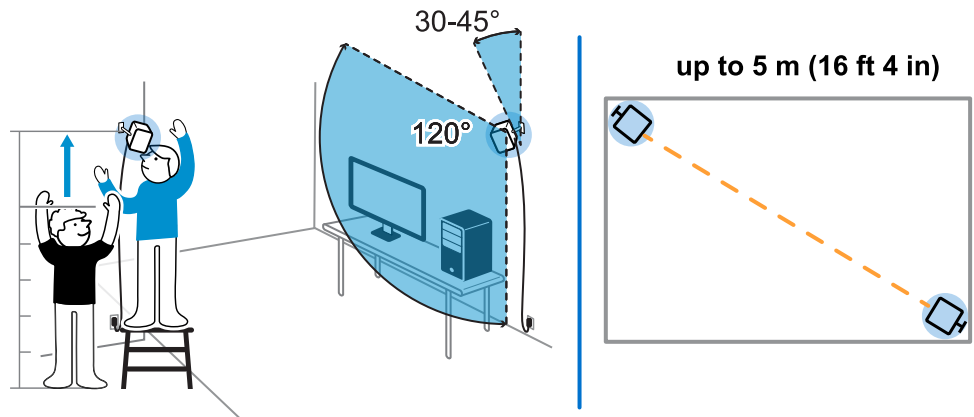
## Tips for setting up the base stations



The hardware may be purchased separately from the Accessories tab on [www.vive.com/product/](http://www.vive.com/product/).

You may set up the base stations in a way that's suitable for your place. For best results, you may follow these recommendations:

- Mount the base stations diagonally and above head height, ideally more than 2 m (6 ft 6 in).
- Secure the base stations in a location where they can't be easily jostled or moved.
- Each base station has a 120-degree field of view, so it's ideal to adjust its angle between 30 and 45 degrees to fully cover your play area.
- For optimal tracking, make sure that the maximum distance between the two base stations is 5 m (16 ft 4 in).



- Avoid setting up in an area with bright light, which may negatively affect the performance of the base stations.

## Using the mounting kit

For best results, install the base stations using a mounting kit. If you purchased the first-generation VIVE, it has the mounting kit in the box. Otherwise, you can separately purchase a similar mounting kit from a third-party supplier.

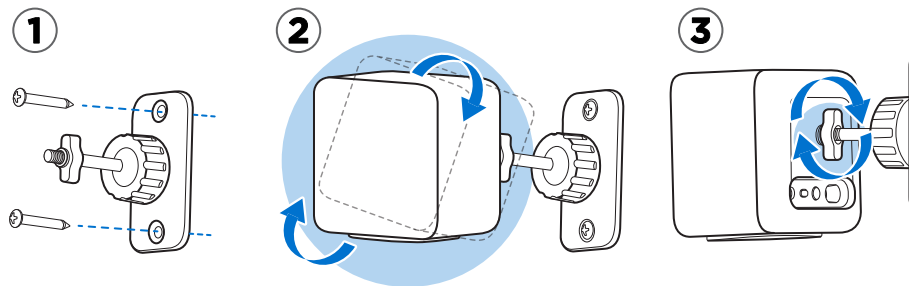


You will need a screwdriver or drill to install the mounts. Ask a professional for help when using power tools.

1. Mark where you want to install each of the mounts on your wall, and then screw the mounts in.

When mounting on concrete or drywall, first drill  $\frac{1}{4}$  inch holes and insert anchors before screwing mounts in.

2. Rotate the base station to screw it onto the threaded ball joint. Do not screw the base station all the way in, only enough to be stable and oriented correctly.
3. Tighten the wingnut to the base station to secure it in place.

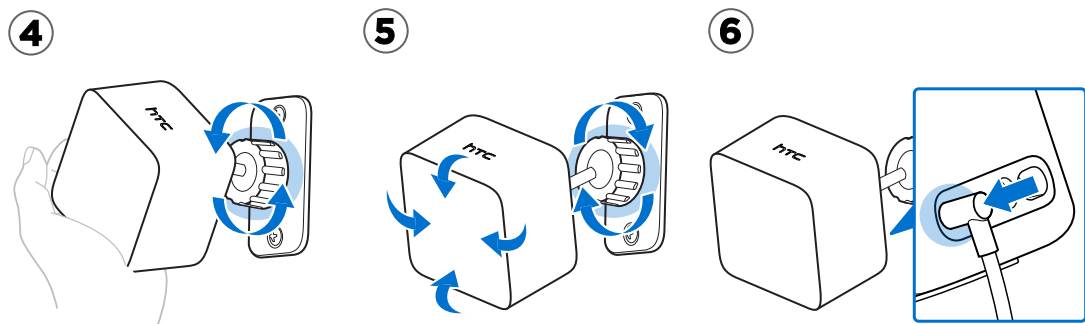


4. To adjust the angle of the base station, loosen the clamping ring while carefully holding the base station to prevent it from falling.
5. Tilt the base station toward the play area.

Make sure it has an unobstructed view of the other base station. Each base station has a 120-degree field of view. They should be angled down between 30 and 45 degrees.

To fix the angle of the base station, tighten the clamping ring back in.

6. Attach the power cable to each base station.






## Updating base station firmware via Bluetooth



The hardware may be purchased separately from the Accessories tab on [www.vive.com/product/](http://www.vive.com/product/).

The easiest way to update base station firmware is wirelessly via Bluetooth®. Make sure your headset is connected to your PC during the update.

1. From your computer, open the SteamVR app.
2. Click  > **Devices** > **Bluetooth Settings** > **Enable Bluetooth**.
3. Do one of the following:
  - Click  > **Devices** > **Update Device**, and then select the base stations.
  - If you see the  icon, mouse over it to check if the firmware is out of date. If so, click **Update Device**.
4. Follow the onscreen instructions to complete the process.




Do not unplug the power cable before the firmware update is complete. Doing so may result in a firmware error.

## Updating base station firmware via cable connection



The hardware may be purchased separately from the Accessories tab on [www.vive.com/product/](http://www.vive.com/product/).

If you're having trouble updating base station firmware via Bluetooth, you can update using a wired connection.

1. From your computer, open the SteamVR app.
2. If you see the  icon, mouse over it to check if the firmware is out of date. If so, click **Update Device**.
3. Unplug the base stations from their power adapters, and then carefully unmount them.
4. Using a micro-USB cable, connect the base stations to one of your computer's USB ports one at time.
5. While pressing the Channel button at the back of the base station, plug in the base station's power adapter.

Once the base station is detected by the SteamVR app, the firmware update will start automatically.



Do not unplug the micro-USB cable or power cable before the firmware update is complete. Doing so could result in a firmware error.

6. When the update is complete, click **Done**.

## What does the status light on the base stations mean?



The hardware may be purchased separately from the Accessories tab on [www.vive.com/product/](http://www.vive.com/product/).

Depending on the status, the LED on the base stations shows the following:

- Green when the base station is in normal mode
- Blue when the base station is waiting to stabilize. If it remains in this state, check if it is mounted securely or on a surface that's not prone to vibration.
- Dim green when the base station is on standby
- Purple when the base stations are trying to sync
- Blinking purple when syncing is blocked. If you're connecting the base stations wirelessly, you may need to use the sync cable. For details on how to get the sync cable, contact customer care.


## What should I do if a base station is not detected?



The hardware may be purchased separately from the Accessories tab on [www.vive.com/product/](http://www.vive.com/product/).

If any of the base stations appear disabled in the SteamVR app, try the following to troubleshoot the problem:

- Turn the base station off and on again.
- Make sure that you've installed your base stations correctly. For details, see [Installing the base stations](#) on page 51.
- Restart the SteamVR app. If you still get an error, reboot your computer and reopen the SteamVR app.

For more information, you may refer to the  [SteamVR Troubleshooting](#) page.

## Can Base Station 1.0 be used with SteamVR Base Station 2.0?



The hardware may be purchased separately from the Accessories tab on [www.vive.com/product/](http://www.vive.com/product/).



No, they are not compatible. SteamVR Base Station 2.0 has a different method of syncing. Use only the same versions of the base stations in your play area so that your setup will work correctly.

## Which VIVE hardware is compatible with my base stations?



Use only the same version of base stations together. Different base station versions are not interchangeable.

Check the table below to see which VIVE hardware you can use with your base stations:

VIVE hardware	Base Station 1.0	Base Station 2.0
VIVE headset	✓	
VIVE Pro headset	✓	✓
VIVE Pro Eye headset	✓	✓
VIVE controllers	✓	
VIVE controllers (2018)	✓	✓
VIVE Tracker (2018)	✓	✓
VIVE Cosmos with VIVE Cosmos External Tracking Faceplate	✓	✓
VIVE Cosmos Elite headset	✓	✓

## Is accidental base station damage covered by warranty?



The hardware may be purchased separately from the Accessories tab on [www.vive.com/product/](http://www.vive.com/product/).

Please follow the recommended setup instructions for the base stations carefully, since product warranty does not cover accidental damage.

Stop using the base stations if they are damaged, especially if its front panels are cracked.

# Controllers

## About the VIVE controllers

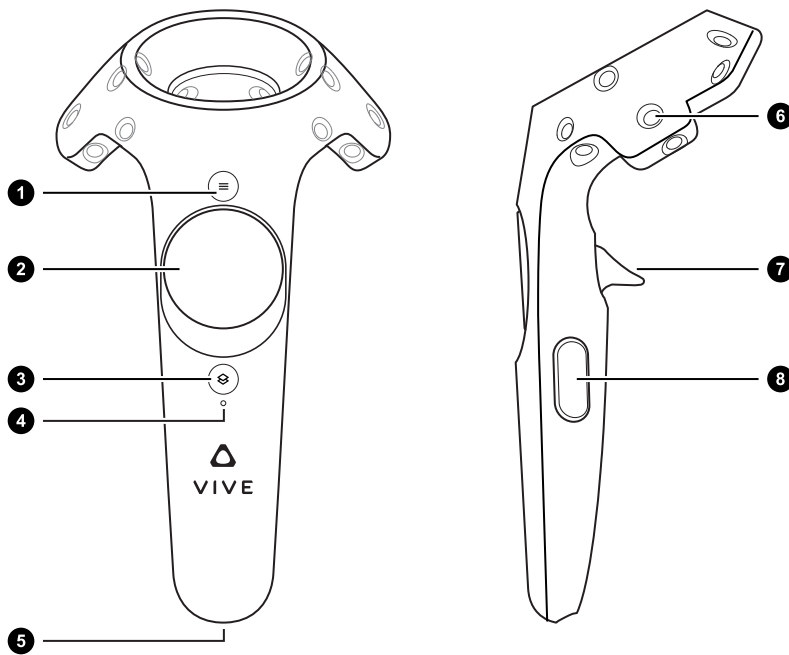


The hardware may be purchased separately from the Accessories tab on [www.vive.com/product/](http://www.vive.com/product/).

Use the VIVE controllers to interact with objects in the VR world. The controllers have sensors that are tracked by the base stations.



The sensors on the controllers are sensitive. Do not cover or scratch the sensor lenses.




1	Menu button
2	Trackpad
3	System button
4	Status light
5	Micro-USB port
6	Tracking sensor


7	Trigger
8	Grip button

## Charging the controllers



The hardware may be purchased separately from the Accessories tab on [www.vive.com/product/](http://www.vive.com/product/).

You can check the battery level of the controllers when apps aren't running or the System Dashboard is up. When the battery is low, the indicator will show a single red dot .

You can also check the SteamVR app. If you see , this means the controller battery is low.

Charge each controller using the provided power adapters and USB cables.

When the controller is plugged in and fully charged, its status light shows green if the controller is on or white if the controller is off.

## Turning the controllers on or off



The hardware may be purchased separately from the Accessories tab on [www.vive.com/product/](http://www.vive.com/product/).

Turn on the controllers using the System button. The controllers turn off automatically when not in use after a period of time.

- To turn the controller on, press the System button until you hear a beeping sound.
- To turn the controller off, press and hold the System button until you hear a beeping sound.

When you quit the SteamVR app, the controllers will automatically turn off. The controllers will also automatically turn off after being idle for a period of time.

## Pairing the controllers with the headset




The hardware may be purchased separately from the Accessories tab on [www.vive.com/product/](http://www.vive.com/product/).

Once the controllers are turned on for the first time, they will automatically pair with the headset.

The status light shows as blinking blue while the pairing is in progress. The status light turns solid green when the controllers are paired with the headset.

You can also manually pair the controllers. Here's how:

1. Launch the SteamVR app.
2. Click , and then select **Devices** > **Pair Controller**.
3. Follow the on-screen instructions to complete the process.

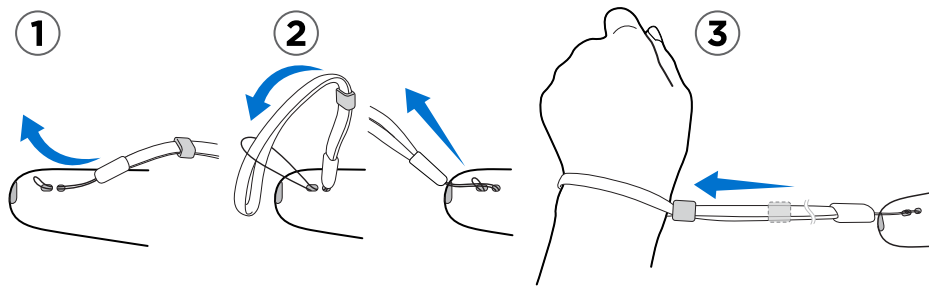
## Attaching the lanyards to the controllers



The hardware may be purchased separately from the Accessories tab on [www.vive.com/product/](http://www.vive.com/product/).

Attaching the lanyards can help prevent accidentally dropping the controllers. Don't fling or violently throw the controller as the lanyard may break.

1. While holding the controller, insert the lanyard's thread from the top to the bottom hole.
2. Loop the lanyard through the thread, and then tug the lanyard to fasten it in place.
3. Place the lanyard on your wrist, and then adjust the lock to tighten the lanyard comfortably around your wrist.




## Updating controller firmware



The hardware may be purchased separately from the Accessories tab on [www.vive.com/product/](http://www.vive.com/product/).

Keep your controllers up-to-date by installing the latest firmware updates. Here's how:

1. From your computer, open the SteamVR app.
2. If you see the  icon, mouse over it to check if the firmware is out of date. If so, click **Update Device**.

3. Using a micro-USB cable, connect the controllers to one of your computer's USB ports one at time.

Once the controller is detected by the SteamVR app, the firmware update will start automatically.



Do not unplug the micro-USB cable any time before the firmware update is complete. Doing so could result in a firmware error.

4. When the update is complete, click **Done**.

## What does the status light on the controllers mean?



The hardware may be purchased separately from the Accessories tab on [www.vive.com/product/](http://www.vive.com/product/).

Depending on the status, the LEDs on the controllers show the following:

- Green when the controller is in normal mode
- Blinking red when battery is low
- Blinking blue when the controller is pairing with the headset
- Blue when the controller is connecting with the headset
- Orange when charging


## What should I do if a controller is not tracked?



The hardware may be purchased separately from the Accessories tab on [www.vive.com/product/](http://www.vive.com/product/).

When a controller appears disabled in the SteamVR app, try the following to troubleshoot the problem:

- Make sure that the controller is placed inside the play area.
- Turn the controller off and on again to reactivate the tracking.
- Restart the SteamVR app. If you still get an error, reboot your computer and reopen the SteamVR app.

For more information, you may refer to the  [SteamVR Troubleshooting](#) page.

## How do I know which controller is not tracked?




The hardware may be purchased separately from the Accessories tab on [www.vive.com/product/](http://www.vive.com/product/).

If one of your controllers is not being tracked and you want to find out which one, follow the steps below.

1. On your computer, open the SteamVR app.
2. Hover your cursor on the icon of the controller that's not tracked.
3. Click **Identify controller**.

The status light on the controller rapidly flashes white.


For more information, you may refer to the  [SteamVR Troubleshooting](#) page.


## What can I do if the controller trackpad is oversensitive?



The hardware may be purchased separately from the Accessories tab on [www.vive.com/product/](http://www.vive.com/product/).

Check if there's a firmware update available for the controllers, and then follow the steps below to re-calibrate a controller.

1. From your computer, open the SteamVR app.
2. Right-click , and then click **Calibrate Controller**.
3. Follow the onscreen prompts to complete the calibration process.

For more information, you may refer to the  [SteamVR Troubleshooting](#) page.

## What should I do if my controller won't turn on?



The hardware may be purchased separately from the Accessories tab on [www.vive.com/product/](http://www.vive.com/product/).

When a controller won't turn on, try the following methods to troubleshoot the problem:

- Press and hold the System button for at least 5 seconds and see if the controller turns on.
- Charge the controller using the other cable and adapter, and plug the adapter to a different power outlet.
- On the SteamVR dashboard, check if the controllers are detected. If controllers are detected but the LED light is off, it may indicate an issue with the LED.
- Check if you have a firmware update that failed. To recover from this error, see [How do I recover my controller after an interrupted update?](#) on page 64.

## The controller automatically turns off. What should I do?



The hardware may be purchased separately from the Accessories tab on [www.vive.com/product/](http://www.vive.com/product/).

If you're experiencing problems with the controller, try these common solutions:

1. Make sure that the controller is charged.
2. Check that the status light on the controller shows as green, which means that it is paired with the headset.
3. Plug the USB cable from the link box into another USB 3.0 port on the computer.
4. Manually update the USB driver on your computer. You can also download and install official driver updates from the website of your motherboard or USB port manufacturer.

## How do I recover my controller after an interrupted update?



The hardware may be purchased separately from the Accessories tab on [www.vive.com/product/](http://www.vive.com/product/).

If a controller firmware update was interrupted, your controllers will go into bootloader mode. Here's how to recover them:

1. Using a micro-USB cable, connect the controller to one of your computer's USB ports.
2. From your computer, open the SteamVR app.
3. Once the controller is detected by the SteamVR app, follow the onscreen prompts to complete the firmware update.



# Play area

## What is the play area?

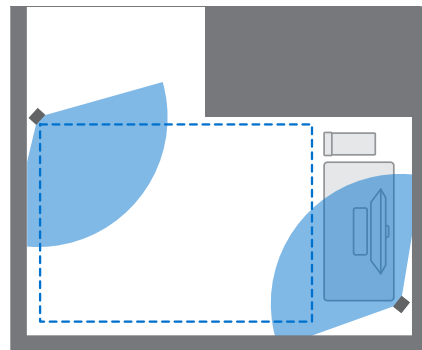
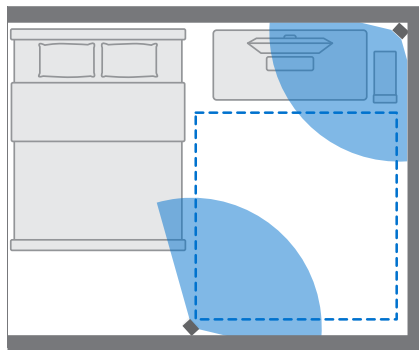
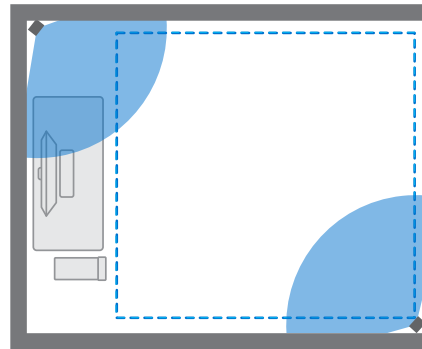
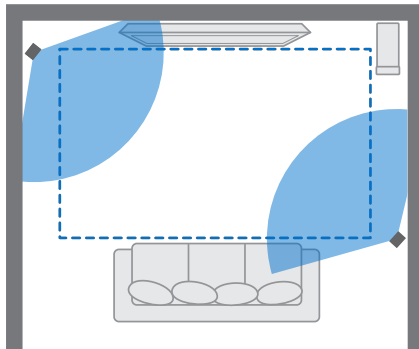
The play area sets the virtual boundaries of VIVE Cosmos. Your interaction with VR objects happens within the play area.

VIVE Cosmos is designed for room-scale setup, but you can also use it if you have limited space or for stationary experiences.

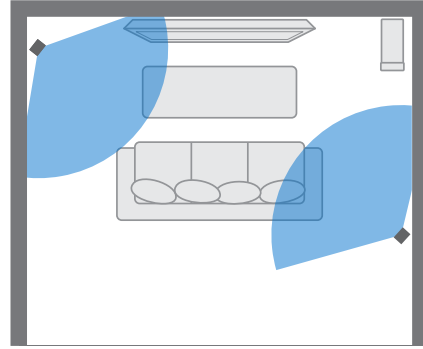
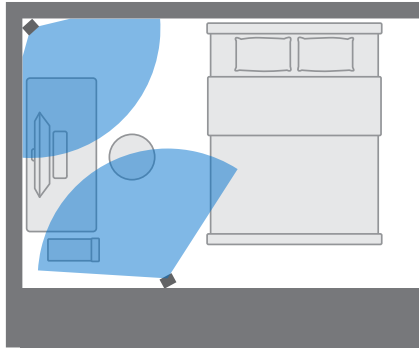
## Planning your play area

Plan the size of your play area based on the available space you have.

- Room-scale setup needs a minimum play area of 2 m x 1.5 m (6 ft 6 in x 5 ft). Here are some examples:



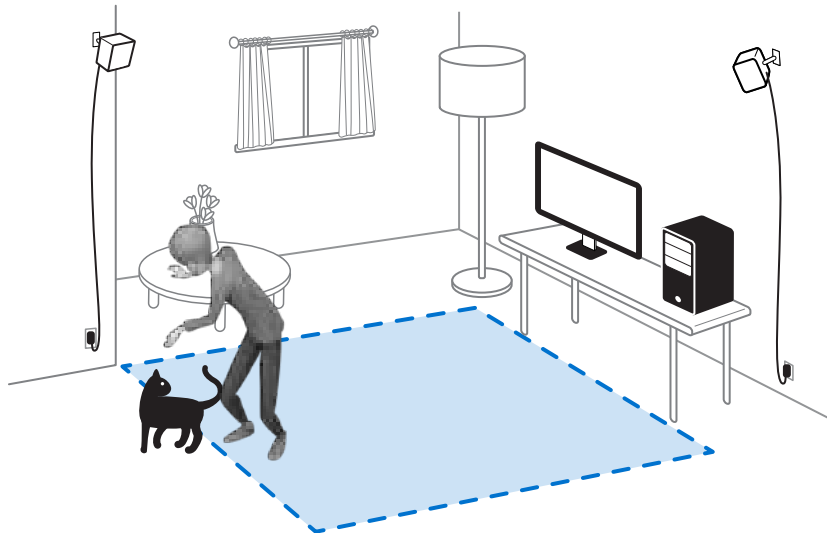
- Limited space or stationary experience does not have space requirements. Here are some examples:



## Choosing the play area

Find a space that you will designate as the play area. For best results, do the following:

- Move furniture and other obstacles (like pets) out of the play area.



- Place your computer next to your play area. The headset cable extends around 5 m (16 ft 4 in) from your computer.
- Make sure that there are power outlets close to where you mount the base stations. Use 12V extension cords as needed.
- Do not leave your headset in direct sunlight, as it may damage your headset display.

## Setting up VIVE Cosmos for the first time

When setting up VIVE Cosmos, you'll be prompted to install VIVE and SteamVR software, set up the hardware, and define your play area.

To start the setup process, download the setup file on your computer from:

[www.vive.com/setup/](http://www.vive.com/setup/)


Run the setup file and follow the prompts to complete the process.

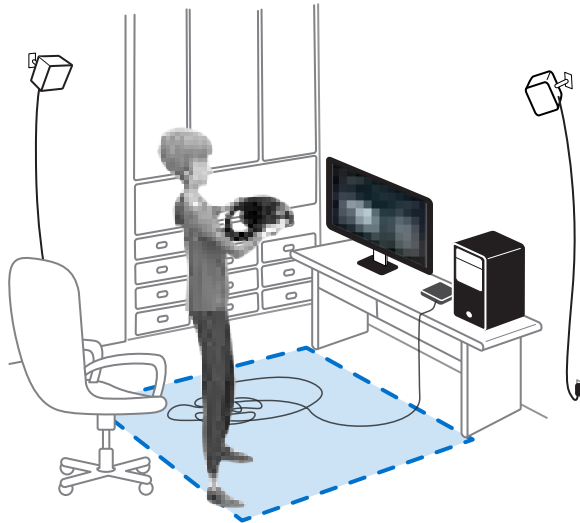


Once you've completed the room setup, you need to run it again if you moved or adjusted the angles of the base stations or if you transfer your VIVE Cosmos VR system to a different room.

## Setting up a standing-only play area


Choose this option if you only want to experience VR in a seated or standing position.

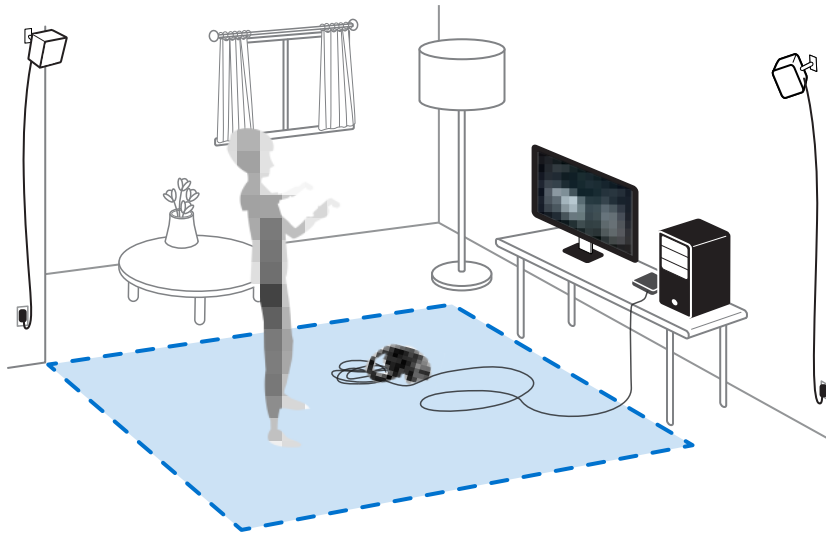
1. From your computer, open the SteamVR app.
2. Click , and then select **Room Setup** > **Standing only**.
3. Review the prompts and follow the on-screen instructions to complete the process.




## Setting up a room-scale play area

Choose to set up a room-scale play area to enjoy moving around and fully engage with the VR experience.

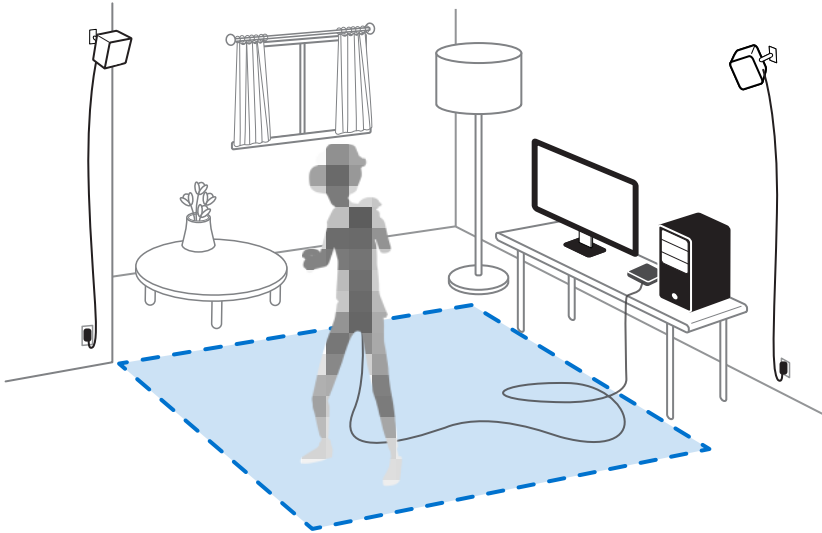
1. From your computer, open the SteamVR app.
2. Click , and then select **Room Setup > Room-scale**.
3. Review the prompts and follow the on-screen instructions to complete the process.



 When tracing the boundaries of the play area, make sure that the floor is cleared. Do not trace across space occupied by things (such as a table or a chair) since this may cause you to trip into the object while in VR.

## Verifying your setup

Once you've completed the VIVE setup process, you can now put on the headset and hold the controllers to start exploring VR.



While you're in the play area, the headset and the controllers should remain at least 0.5 m (1 ft 7 in) and no further than 5 m (16 ft 4 in) away from a base station. This will ensure that the devices are properly tracked within the base station's 120-degree field of view.



For health and safety warnings, please refer to the Safety and regulatory guide, which is periodically updated for accuracy and completeness. For the latest version, check [www.vive.com/](http://www.vive.com/).

## After setting up, how do I turn the VIVE system on?

Make sure you've followed these steps to get your VIVE Cosmos system ready for use.

1. From your computer, open the VIVE Console app.
2. Make sure your base stations are powered.
3. Make sure that your headset is connected to the computer via the link box or converter. For details, see [Connecting the headset to your computer via the link box](#) on page 44 or [Connecting the headset to your computer via the converter](#) on page 47.
4. Turn the controllers on. For details, see [Turning the controllers on or off](#) on page 59.
5. Check that VIVE hardware is tracked. The status icons on the SteamVR app are blue and the status lights on the hardware are green.
6. Put the headset on. For details, see [Putting on the VIVE Cosmos headset](#) on page 10.
7. Grab your controllers.

To bring up the System Dashboard, press the System button on either controller.

## What is the recommended space for the play area?

Movement within a diagonal area of up to 5 m (16 ft 4 in) is supported. For example, a 3.5 m x 3.5 m (around 11 ft 5 in x 11 ft 5 in) space. For room-scale setup, a minimum play area of 2 m x 1.5 m (6 ft 6 in x 5 ft) is required. There's no minimum for seated and standing experiences.

## Can I include space occupied by furniture for the play area?

Try to keep your play area clear. When setting the play area boundary, make sure the floor is free of obstacles. Do not trace across space occupied by things (such as a table or a chair) since this may cause you to trip into the object while in VR.

## Can seated/standing-only experiences work at room scale?

Even if you have a room-scale setup, you can still use VR apps that are designed for seated or standing-only experiences. Just make sure that your headset and controllers are tracked within the play area.

## How do I fix download errors during VIVE Setup installation?

Download errors are usually caused by incorrect network settings. For example, due to wrong DNS, the download server address is unresolved by the host. Some network destinations may be inaccessible, even as connection to other websites seems normal. Please make sure that your network settings are correct, or ask your network administrator for support.

## I can't complete the room setup. What should I do?

Check if you're using special characters (such as à or é) in your local Windows user name, which could cause the problem.

As a workaround, you can add a new Windows account using basic Latin alphabet for your user name. After logging in with the new user name, reinstall VIVE Setup and complete the process.

# Settings

## System Dashboard


The System Dashboard serves as your central point of entry in VR. Here are some of the things you can do in the dashboard:

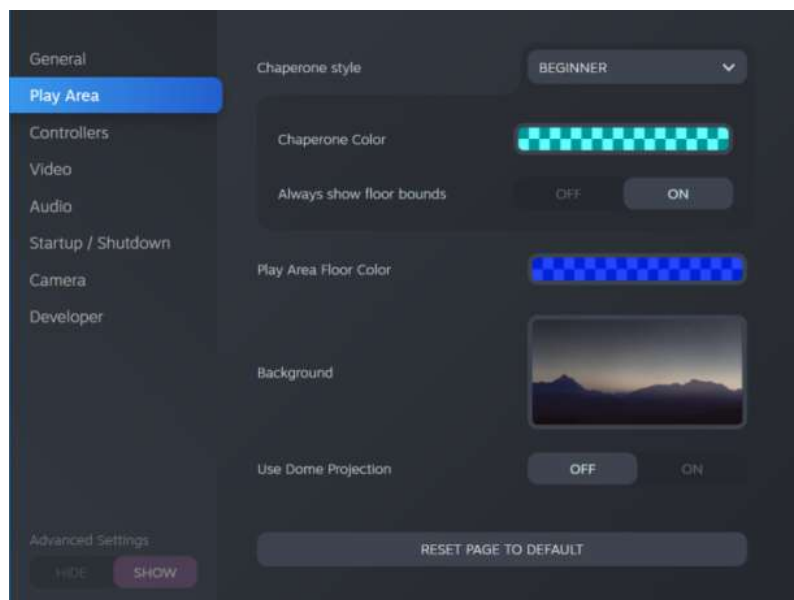
- Launch or close a VR app
- Control sound volume and mic access
- Change settings, such as style of the collision bounds in Chaperone or the in-headset background
- Turn the VIVE Cosmos system off

To bring up the dashboard, press the System button on either controller.

## Changing the Chaperone settings

The Chaperone shows a grid whenever you're close to the bounds of your play area. You can change how the grid looks.

1. From the System Dashboard, select .
2. Select **Play Area**.



3. In Chaperone style, choose the collision bound style you want.

4. Click colored box to the right of Chaperone Color to set the color and transparency of the bounds.
5. To show a constant visual reference of your floor bounds while in VR, select the Always show floor bounds **On/Off** switch to turn it on.



You can also change the Chaperone settings in the SteamVR app.

## How can I capture screenshots in VR?

While in VR, press the System button and the trigger at the same time. You'll see a notification when the screenshot is saved.

You can access screenshots directly from the Steam client by clicking **View > Screenshots**.

To find screenshots from apps downloaded in VIVEPORT, navigate to the Steam installation folder. The default location on 64-bit versions of Windows is:

```
C:\Program files (x86)\Steam\userdata\[Steam user number]\760\remote\0\screenshots
```

If you have chosen a custom installation folder, navigate to it and find the following subfolder:

```
...\Steam\userdata\[Steam user number]\760\remote\0\screenshots
```

Screenshots from other apps can be found in their respective folder:

```
...\Steam\userdata\[Steam user number]\760\remote\[app folder]\screenshots
```

## Disabling Volume limit

By default, Volume limit is turned on for safety reasons. If you feel that the headphone volume is not loud enough even with the volume level set high, you can turn Volume limit off.




Listening at a high volume for a long time may damage your hearing.

1. From your computer, open the VIVE Console app.
2. Click **☰**, and then select **Settings > Audio**.
3. Click the Volume limit **On/Off** switch to turn the setting off.



## Enabling motion compensation

Turning on motion compensation helps keep the frame rate consistently high even if you have less-than-ideal computer specs.

1. From your computer, open the VIVE Console app.
2. Click , and then select **Settings > Video**.
3. Click the Motion compensation **On/Off** switch to enable it.



- Some graphic cards may not support motion compensation.
- To learn more about motion compensation, see [What is motion compensation?](#) on page 73.

### What is motion compensation?

Motion compensation is a feature that helps smooth frame rates in VR applications for a more seamless visual experience. If an app is unable to consistently deliver the needed frame rate (90 FPS for VIVE Cosmos), motion compensation reduces the frame rate by half, and then uses advanced prediction algorithms to synthesize the missing frames. The result is smoother performance without stuttering or lag, while requiring less processing power to render. This can also help relieve disorientation and motion sickness caused by VR lag.

Motion compensation can further reduce the frame rate below half, and synthesize additional frames as needed. However, synthesized frames may have artifacts in some apps.

Here's how to enable motion compensation:

From VIVE Console, click  > **Settings > Video**. Then, turn on the Motion compensation **On/Off** switch.

Supported graphics cards include:

NVIDIA® GeForce® GTX1060 or better. AMD™ GPU support coming soon.


## Updating the firmware

Firmware updates for VIVE Cosmos may include improved functionality and bug fixes.

1. From your computer, open the VIVE Console app.
2. If a firmware update is detected for any of the VIVE Cosmos hardware, click **Firmware update**. You'll see a list of hardware that has an available firmware update.
3. Click **Update**.
4. Check that the progress is complete. If the controllers have updated, you may need to turn them back on.

## Troubleshooting VIVE Cosmos

If there is a persistent problem with VIVE Cosmos that cannot be solved, you can reset the headset and settings.

1. From your computer, open the VIVE Console app.
2. Click , and then select **Settings > Troubleshooting > Reset headset and settings**.




You can also report an issue or send feedback by clicking **Report**.

## Joining the VIVE Cosmos beta program

Opting in to the VIVE Cosmos beta program lets you receive preview builds and give feedback.



Beta software may be unstable and not work as intended.

1. From your computer, open the VIVE Console app.
2. Click , and then select **Settings > Advanced**.
3. Click the Beta program **On/Off** switch to enable it. When prompted, confirm whether to join the beta program or not.




You can opt-out of the beta program anytime by turning the Beta program switch off.

## Seeing real surroundings

Simply press the Headset button to see your real surroundings on VIVE Cosmos. You need to enable pass-through in VIVE Console Settings.



Make sure your VIVE Console app is updated to version 2.0.17.2 or later.

1. From your computer, open the VIVE Console app.
2. Click , and then select **Settings > Advanced**.
3. Under Headset button, select **Pass-through**.



- Selecting this setting doesn't require restarting the VIVE Console app.
- This setting enables pass-through only. It's different from the SteamVR Camera option.

## What do the error codes and messages mean? What can I do?


Check the error code associated with the issue, and then try to resolve the error with the suggested steps.

Error code	Issue	Steps to resolve issue
001	Headset is not connected.	<ul style="list-style-type: none"> <li>▪ Check that the headset is properly connected to your computer.</li> <li>▪ Use a different USB port on your computer.</li> <li>▪ If the issue persists, restart your computer.</li> </ul>
002	VIVE Console needs to be restarted.	<ol style="list-style-type: none"> <li>1. Close VIVE Console.</li> <li>2. Open Task Manager.</li> <li>3. Find and select <code>HID_Manager_Server.exe</code>.</li> <li>4. Click <b>End task</b>.</li> <li>5. Restart VIVE Console.</li> </ol>
003	DisplayPort cable is disconnected or no video stream detected.	<ol style="list-style-type: none"> <li>1. Make sure the DisplayPort cable is plugged in to the link box or converter and computer.</li> <li>2. On your computer, go to <b>Control Panel &gt; System and Security &gt; System</b>.</li> <li>3. Click <b>Device Manager</b>, and then click to expand the list under <b>Universal Serial Bus controllers</b>.</li> <li>4. Right-click <b>Generic USB Hub</b> (there may be more than one with the same label), and then select <b>Properties</b>.</li> <li>5. Click the <b>Power Management</b> tab, and then de-select <b>Allow the computer to turn off this device to save power</b>.</li> <li>6. Restart the link box or converter.</li> <li>7. Restart VIVE Console.</li> </ol> <p>If the issue persists, try updating your GPU driver to the latest version.</p>
005	Make sure front cover is firmly attached to the headset.	Make sure front cover is firmly attached to the headset.
006	DisplayPort connection is not stable.	<ul style="list-style-type: none"> <li>▪ Try restarting the headset.</li> <li>▪ Try another DisplayPort port on your computer.</li> <li>▪ Check if your graphics card supports DisplayPort.</li> </ul>

Error code	Issue	Steps to resolve issue
007, 008	ROM checksum failed. Try again after updating the software.	<ol style="list-style-type: none"> <li>1. Follow the steps to re-download and update the software.</li> <li>2. Run the firmware update again.</li> </ol>
009	The USB cable must be connected to a USB 3.0 or higher port on the computer.	<ol style="list-style-type: none"> <li>1. Make sure the USB cable is connected to a USB 3.0 or higher port on the computer.</li> <li>2. If the USB cable is already connected to a USB 3.0 or higher port on the computer, try switching to a different USB 3.0 or higher port.</li> <li>3. If the issue persists, on your computer, go to <b>Control Panel &gt; System and Security &gt; System</b>.</li> <li>4. Click <b>Device Manager</b>, and then click to expand the list under <b>Universal Serial Bus controllers</b>.</li> <li>5. Right-click <b>Generic USB Hub</b> (there may be more than one with the same label), and then select <b>Properties</b>.</li> <li>6. Click the <b>Power Management</b> tab, and then de-select <b>Allow the computer to turn off this device to save power</b>.</li> <li>7. Restart the link box or converter.</li> <li>8. Restart VIVE Console.</li> </ol>
010	No audio coming from the headset.	<ol style="list-style-type: none"> <li>1. In the Windows audio settings, adjust the volume level and make sure the volume is not muted.</li> <li>2. If the issue persists, in the Windows task tray, right-click the <b>volume icon &gt; Sounds</b>. In the Playback tab, right-click <b>VIVE Cosmos &gt; Set as Default Device</b>.</li> <li>3. If the issue persists, in the Playback tab, right-click <b>Speaker VIVE Cosmos Multimedia Audio &gt; Set as Default Device</b>.</li> <li>4. If the issue persists, restart the link box or converter.</li> <li>5. If the issue persists, plug the USB cable into a different USB 3.0 port on your computer.</li> <li>6. If the issue persists, manually update the USB driver on your computer. You can also download and install official driver updates from the website of your motherboard or USB port manufacturer.</li> <li>7. If the issue persists, restart your computer.</li> <li>8. If updating your USB driver doesn't solve the issue, purchase and use another PCI-Express USB card (with Intel chipset).</li> </ol>

Error code	Issue	Steps to resolve issue
100	USB hub update failed.	<ol style="list-style-type: none"> <li>1. From your computer, open the <b>Device Manager</b>.</li> <li>2. Under Universal Serial Bus controllers, find and right-click <b>Generic USB Hub</b>, and then select <b>Properties</b>.</li> <li>3. Click the <b>Details</b> tab, and then select <b>Hardware IDs</b> from the drop-down list.</li> <li>4. Under Values, find the following nodes: <ul style="list-style-type: none"> <li>▪ VID: 0BB4, PID: 0315</li> <li>▪ VID: 0BB4, PID: 0323</li> </ul> </li> <li>5. Click the Power Management tab, and then de-select <b>Allow the computer to turn off this device to save power</b> option.</li> <li>6. Restart your computer as well as the link box or converter.</li> <li>7. Retry the firmware update.</li> </ol>
101	Audio update failed.	<ol style="list-style-type: none"> <li>1. Restart your computer as well as the link box or converter.</li> <li>2. Retry the firmware update.</li> </ol>
102, 106, 107, 108	Headset firmware update failed.	<ol style="list-style-type: none"> <li>1. Restart your computer as well as the link box or converter.</li> <li>2. Retry the firmware update.</li> </ol>
103	Controller firmware update failed.	<ol style="list-style-type: none"> <li>1. Restart your computer as well as the link box or converter.</li> <li>2. Retry the firmware update.</li> </ol>
105	Headset not connected.	<ol style="list-style-type: none"> <li>1. Restart your computer as well as the link box or converter.</li> <li>2. Retry the firmware update.</li> </ol>
109, 110, 111, 112	Camera firmware update failed.	<ol style="list-style-type: none"> <li>1. Restart your computer as well as the link box or converter.</li> <li>2. Retry the firmware update.</li> </ol>
200	The headset cannot be detected. Make sure that cables are properly connected and then restart the headset.	Make sure the cables between the headset, link box or converter, and computer are all properly connected and then restart the headset.

Error code	Issue	Steps to resolve issue
201	The headset display cannot be detected. Make sure that the headset cable is properly connected.	Make sure the headset cable is properly connected.
202	Calibration data is lost. For assistance on how to fix this, contact <a href="#">Customer Care</a> .	Contact <a href="#">Customer Care</a> .
203, 205, 206, 207	Oops! This should not happen. Re-install VIVE software to fix this.	Re-install the VIVE software.
208	Update VIVE software and firmware to fix this.	Update both the VIVE software and firmware.
209	The server is disconnected. Restart VIVE Console to fix this.	<ol style="list-style-type: none"> <li>1. Restart VIVE Console.</li> <li>2. If the issue persists, restart your computer.</li> </ol>
210	The compositor is disconnected. Restart VIVE Console to fix this.	Restart VIVE Console.
211	Check that your GPU driver is updated to the latest version.	Make sure your GPU driver is updated to the latest version.
212, 213, 214	Restart VIVE Console to fix this [error ID number].	Restart VIVE Console.
215	Please update graphics card driver.	Update your graphics card driver to the latest version.
216	Please check that SteamVR was installed properly or has finished updating.	Make sure SteamVR was installed properly or has finished updating.
217	SteamVR has encountered an unexpected problem. Restart VIVE Console to fix this.	Restart VIVE Console.

Error code	Issue	Steps to resolve issue
218	The VIVE Cosmos camera is being used by another application.	<ol style="list-style-type: none"> <li>1. In Windows' <b>Privacy settings</b> &gt; <b>Camera</b>, make sure <b>Allow apps to access your camera</b> is enabled. Then, restart VIVE Console.</li> <li>2. If the issue persists, check if the VIVE Cosmos camera is occupied by another Windows application. If yes, close the application using the camera, and then restart VIVE Console.</li> <li>3. If the issue persists, restart your headset.</li> <li>4. If the issue persists, use a different USB 3.0 port on your computer. Then, restart VIVE Console.</li> </ol>
219	The VIVE Cosmos headset can't be recognized when SteamVR is in safe mode.	<p>Disable SteamVR safe mode, and restart SteamVR. If the problem persists, do the following:</p> <ol style="list-style-type: none"> <li>1. Update SteamVR to version 1.10.28 or later.</li> <li>2. In SteamVR, click  &gt; <b>Settings</b>.</li> <li>3. Click <b>Startup / Shutdown</b> &gt; <b>Manage Add-Ons</b>.</li> <li>4. In Manage SteamVR Add-Ons, do one of the following: <ul style="list-style-type: none"> <li>▪ To the right of viveVR, click <b>Unblock</b>.</li> <li>▪ Make sure viveVR is turned <b>On</b>.</li> </ul> </li> <li>5. Close SteamVR.</li> <li>6. Restart VIVE Console.</li> </ol>
220	There is a compatibility problem with the DisplayPort connection (HDCP error)	<p>If you're using an MSI notebook, go to MSI's technical support <a href="#">web page</a> for help on how to update your notebook to the latest V-BIOS.</p> <p>If you're not using an MSI notebook, submit a report using VIVE Console. In VIVE Console, go to <b>Settings</b> &gt; <b>Troubleshooting</b> &gt; <b>Report issue</b>.</p>
221	The front cover has been changed. Restart VIVE Console to fix this.	Restart VIVE Console.
222	The headset cannot be detected. Make sure the USB cable is properly connected.	Make sure the USB cable is properly connected on the link box and/or computer.
223	Make sure the headset's camera firmware is updated to the latest version.	<ol style="list-style-type: none"> <li>1. Open VIVE Console.</li> <li>2. Click <b>Firmware update</b> &gt; <b>Update</b>.</li> <li>3. Restart VIVE Console.</li> </ol>

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# Index

## B

### Base stations

- about *50*
- installing *51*
- mounting with the kit *54*
- setup tips *53*

### Beta program *74*

## C

### Cable guides

- attaching *40*
- detaching *41*

### Controllers

- about *58*
- attaching lanyards *60*
- charging *59*
- pairing with the headset *59*
- turning on or off *59*

### Converter

- connecting the headset *47*
- restarting the converter *48*

## D

### Disabling volume limit *72*

## F

### Firmware updates *73*

## H

### Headset

- adjusting the IPD *13*
- cleaning the lenses *26*
- connecting a USB device *17*
- putting on *10*
- replacing the face cushion *19*
- status lights *30*

## L

### Link box

- connecting the headset *44*

## M

### Motion compensation *73*

## O

### On-ear headphones

- adjusting *30*
- attaching *34, 36*
- detaching *31*

## P

### Play area

- about *65*
- choosing *66*
- room-scale *68*
- setting up *65*
- standing/seated experience *67*
- verifying the setup *69*

## R

### Room-scale

- setting up *68*

## S

### Standing/seated experience

- setting up *67*

## T

### Troubleshooting VIVE Cosmos *74*

## V

### VIVE Console

- beta program *74*
- Firmware update *73*

- motion compensation *73*
  - troubleshooting *74*
  - volume limit *72*
- Vive system
- turning on *69*