



SmartFIT Installation Guide for Fixed Frame Screen and Wall



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Step A: Preparation

What's Required

1. Optoma 4K Ultra Short Throw Projector (example: CinemaX Pro, UHZ65UST – see Support Model List on [Page 18](#)).
2. SmartFIT Distance Cards x2 (included in the box).
3. Projection Surface: Fixed Frame Screen, Fixed Frame ALR Screen (Ambient Light Rejection) or “prepared” Wall surface (no Fixed Frame Screen).
4. Smartphone with iOS or Android / access to Apple Store or Google Play for download of Optoma SmartFIT App.
5. Optional: Measuring Tape (if using the Wall as a projection surface or following experienced users' path).
6. Optional: Level Tool (Experienced Users only)



Fixed Frame Screen, Fixed Frame ALR Screen or “prepared” Wall surface.

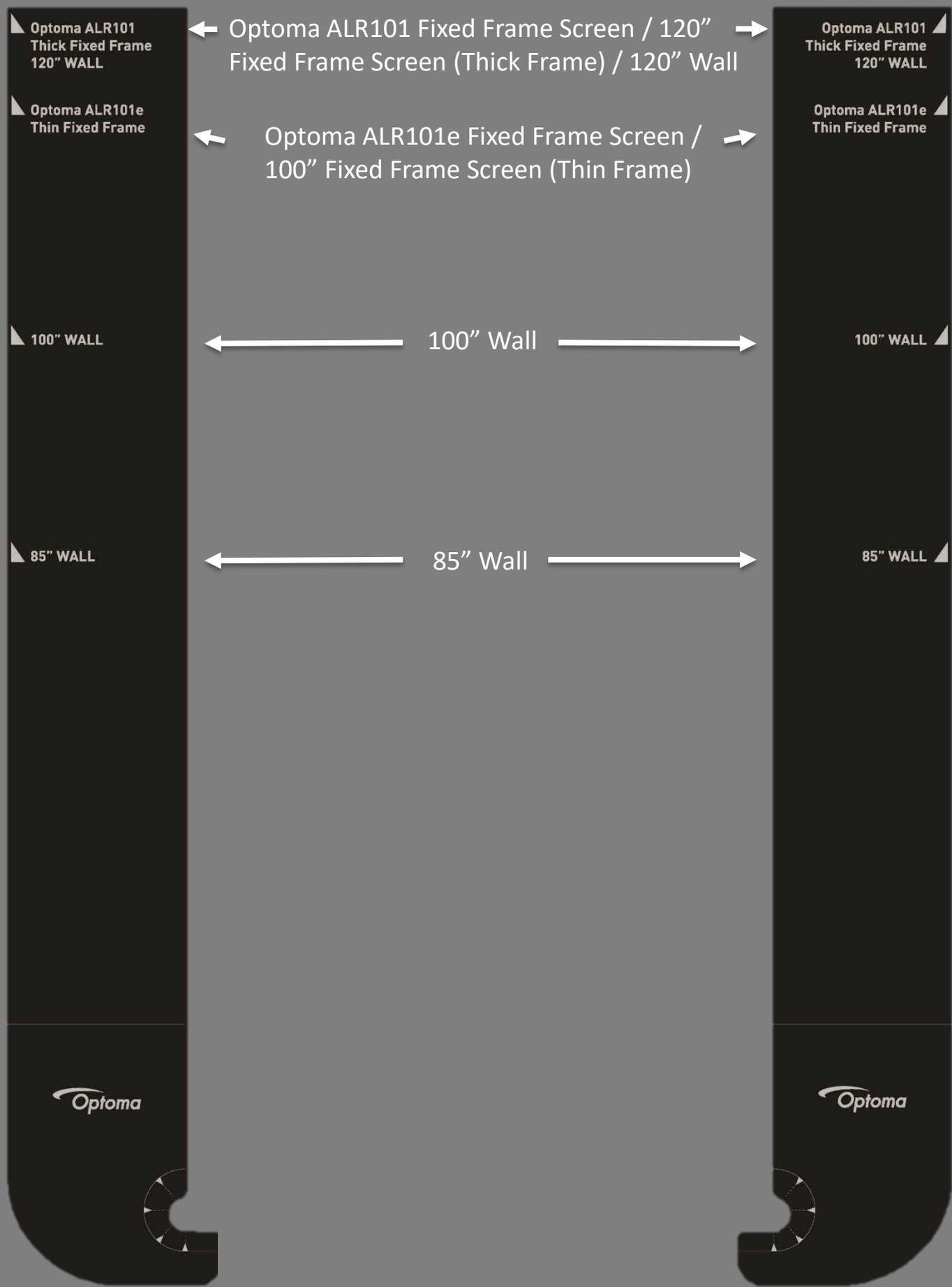
Step B: SmartFIT Distance Cards Overview

SmartFIT Distance Cards support multiple projection methods – Fixed Frame Screen, Fixed Frame ALR Screen and Wall. The Distance Cards are marked accordingly (starting from the top):

- Optoma ALR101 / Thick Fixed Frame / 120-inch Wall line** is intended for the Optoma 100-inch ALR101 Fixed Frame Screen, 100-inch Fixed Frame Screens with a thick frame (back to front) and 100-inch image projected onto a Wall. Thick Fixed Frame Screens are generally 1.6-inch to 2-inch in depth (distance from front of screen to wall).
- Optoma ALR101e / Thin Fixed Frame line** is intended for use with the Optoma 100-inch ALR101e ALR Fixed Frame Screen and 100" Thin Fixed Frame Screen. Thin Fixed Frame Screens are generally 0.75-inch to 1.5-inch (distance from front of screen to wall).
- 85-inch and 100-inch Wall line** is intended for those who will not use a Fixed Frame Screen with the projector. Use this line for projecting directly onto the Wall.
- Proceed to Step C if you plan to use the SmartFIT App for Auto Geometry Correction, SmartFIT for Manual Geometry Correction or Step F for manual installation with no SmartFIT Auto Geometry Correction.

NOTE: SmartFIT Auto Geometry Correction uses a combination of 4-Corner and Warping to FIT the image to the Fixed Frame Screen by reducing the number of active pixels. **In addition, SmartFIT Auto Geometry Correction will also increase input lag therefore, if gaming is a priority, skip to step G, all others proceed to step C.**

SmartFIT Distance Cards Overview



Step C: Fixed Frame Installation with SmartFIT

1. Assemble Fixed Frame Screen (non-ALR or ALR) – do not mount the Fixed Frame Screen until instructed later in this Installation Guide.
2. If you plan to use the “Wall” as a projection surface – please proceed to STEP E.
3. To determine the proper position for installation of the Fixed Frame Screen on the wall, use the projector test pattern (see next page).



Fixed Frame Screen

4. Turn on projector and follow the out-of-box first-time setup wizard.

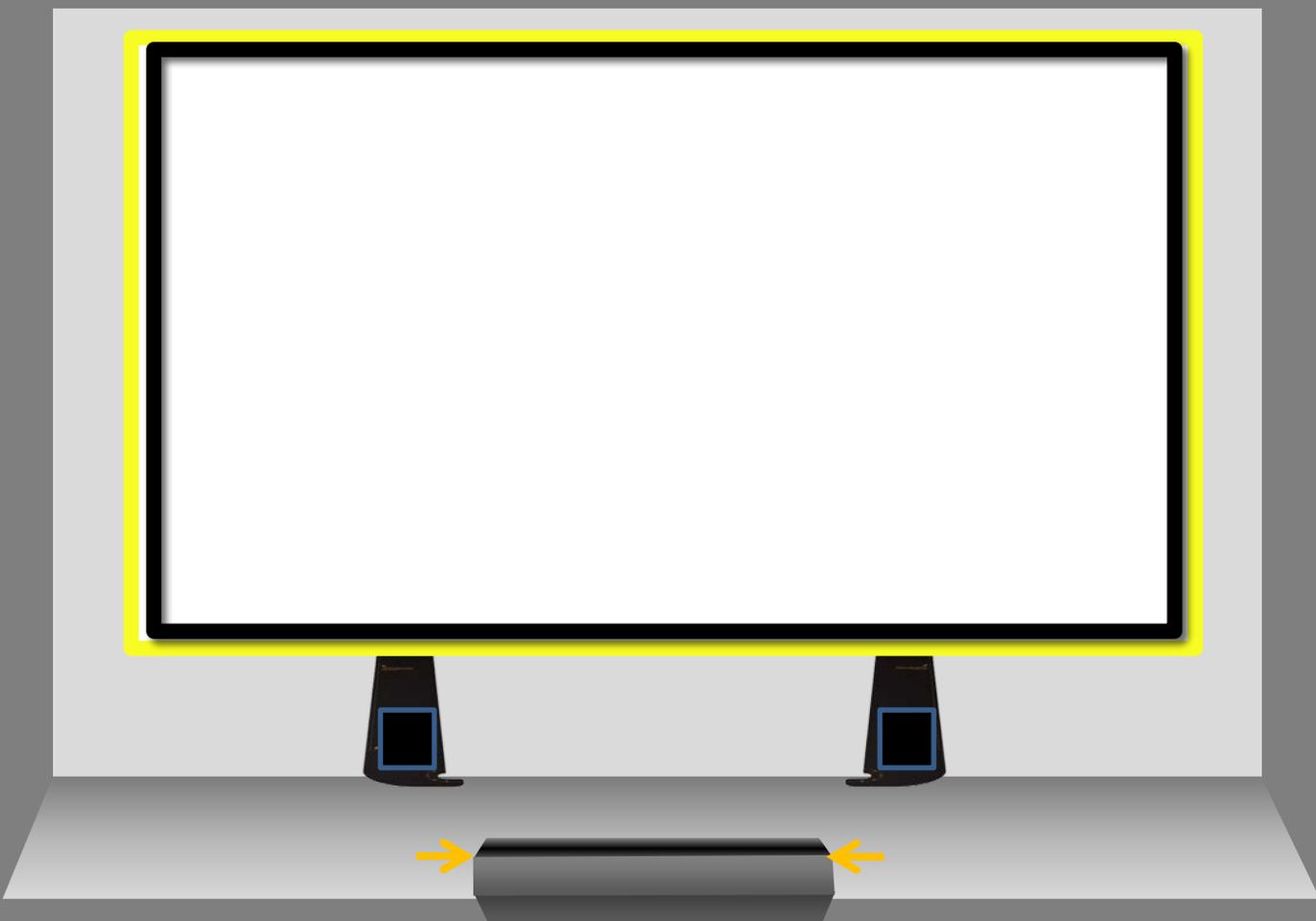
5. Press  menu key on the remote control.

Select “Setup” → Test Pattern → choose “Yellow Border” Pattern



6. Attach the SmartFIT Distance Cards to the bottom of the projector by sliding the distance card in from the side (left and right) until you feel the Distance Card hook the rear feet (closest to the wall or projection surface).
7. Fold the card up or down at a 90-degree angle for the “desired projection distance and method” (see page 4 – SmartFIT Distance Card Info). Move the projector and or entertainment center/table until the Distance Card touches the wall.
8. Mount the Fixed Frame Screen to the Wall using the yellow screen pattern as a guide.

IMPORTANT: Yellow test pattern MUST be outside of the Fixed Frame Screen. After using Distance Cards, it may be necessary to adjust the projector.



Step D: Using SmartFIT Geometry Correction App With Fixed Frame Screen



1. Please download SmartFIT App  for Android or iOS to your Smartphone.
2. Ensure that the Smartphone and projector are on the same wireless (Wi-Fi network) network.
3. Open the SmartFIT app, follow the onscreen instructions and then select “auto” (recommended). Once the SmartFIT Auto Geometry Correction is complete, saved the result by select “Finished” or select “Fine Tune” to commit some minor adjustments.

NOTE: In some instances, “auto” may not work as intended due to placement of the screen or lighting in the room. In this case we recommend using the “manual” feature in SmartFIT instead of “auto”.

When using manual feature, there are 3 increment choices: 1, 4, and 16. For small adjustments use 1 or 4. For large adjustments use 16.

Tips on using SmartFIT App:

1. Ensure the room has proper lighting and that no direct light is on the screen. The frame of the fixed frame screen should be clearly visible to the human eye.
2. Crosshair must over the star in the center calibration page. Ensure the photo is “square” before taking the photo.
3. No Wi-Fi? CinemaX Pro includes a hotspot. To connect Smartphone directly to CinemaX Pro, go to Settings > Network > Wireless > Other Options / Portable Hotspot. Then launch the SmartFIT app.

Step E: Wall Installation with SmartFIT

1. Turn on projector and follow the on-screen first-time setup instructions.
2. Press  menu key on the remote control.
3. Select “Setup” → Test Pattern → choose “Yellow Border” Pattern.
4. Ensure the test pattern is level on the top and sides – we strongly recommend the use of a “level tool”.
5. Use black painters' tape with a width no larger than 0.50-inch to create a temporary frame of 100-inch diagonal (87-inch wide) or 120-inch diagonal (105-inch wide) image around the yellow test pattern. Stay as close to the INSIDE border of the yellow test pattern as possible. **Yellow frame MUST be outside of the frame created with the painters' tape.**



Step F: Using SmartFIT Geometry Correction App with a Wall



1. Please download SmartFIT App for Android or iOS to your Smartphone.
2. Ensure that the Smartphone and projector are on the same wireless (Wi-Fi network) network.
3. Open the SmartFIT app and follow the onscreen instructions. Once the SmartFIT Auto Geometry Correction is complete, save the result by selecting “Finished” or select “Fine Tune” to commit minor adjustments.

NOTE: In some instances, “auto” may not work due to thickness of the gaffe taped used (under $\frac{1}{4}$ ” or over $\frac{3}{4}$ ”) or the lighting in the room may not be enough. In this case we recommend using the “manual” feature in SmartFIT instead of “auto”.

4. When SmartFIT Auto Geometry Correction is complete -- remove the black gaffe/painters' tape from the wall.

Tips on using SmartFIT App:

1. Ensure the room has proper lighting and that no direct light is on the screen.
2. Please ensure that frame created on the wall is the only object in the camera display before taking a photo.
3. Crosshair must over the star in the center calibration page and the photo must be as “square” (straight) as possible.

Step F (Con't): Using SmartFIT Geometry Correction App with a Wall

4. If you do not have internet connection, Wi-Fi or a router - CinemaX Pro includes a hotspot feature. To connect Smartphone directly to CinemaX Pro, go to Settings > Network > Wireless > Other Options /Portable Hotspot. Then launch the SmartFIT app.

Tips on using SmartFIT App with a Wall:

1. When using a wall -- texture or pattern may interfere with the calibration, resulting in a failure. Ensure chosen surface is relatively smooth and if the "auto" feature continues to fail, please use the "manual" feature.
2. If the wall is concave or seriously bowed – we recommend using the manual 81-point manual warping tool.

To access the warping tool: Press the menu button the remote > Geometric Correction > Warp Calibration.

For more information please see the Geometric Correction Guide at <https://www.optoma.com/support/download>

Step G: Advanced Installation – Fixed Frame Screen and Wall Installation without SmartFIT (Experienced Users Only)

This installation method is for those who preferred to manually align the projector image to a Fixed Frame Screen or the Wall without the use of SmartFIT (Auto Geometry Correction). Manually aligning an Ultra Short Throw Projector will take considerable time and energy – please plan accordingly.

NOTE: If you plan to play games, especially First-Person Shooters and Fighting, we strongly recommend disabling the MEMC (PureMotion) in the OSD: Image Settings > PureMotion. Set PureMotion to OFF. PureMotion is source dependent meaning if you change from Xbox One X to PS4 Pro – you will need to disable PureMotion again.

1. Assemble Fixed Frame Screen (non-ALR or ALR) – do not mount the Fixed Frame Screen.
2. To determine the proper position for installation of the Fixed Frame Screen on the wall, use the projector test pattern (see next page).
3. **NOTE:** If using the “Wall” as a projection surface – please follow steps 4 through 7 – skip step 8.



Fixed Frame Screen

4. Turn on projector and follow the out of box first-time setup wizard.

5. Press  menu key on the remote control.

Select “Setup” → Test Pattern → choose “Yellow Border” Pattern

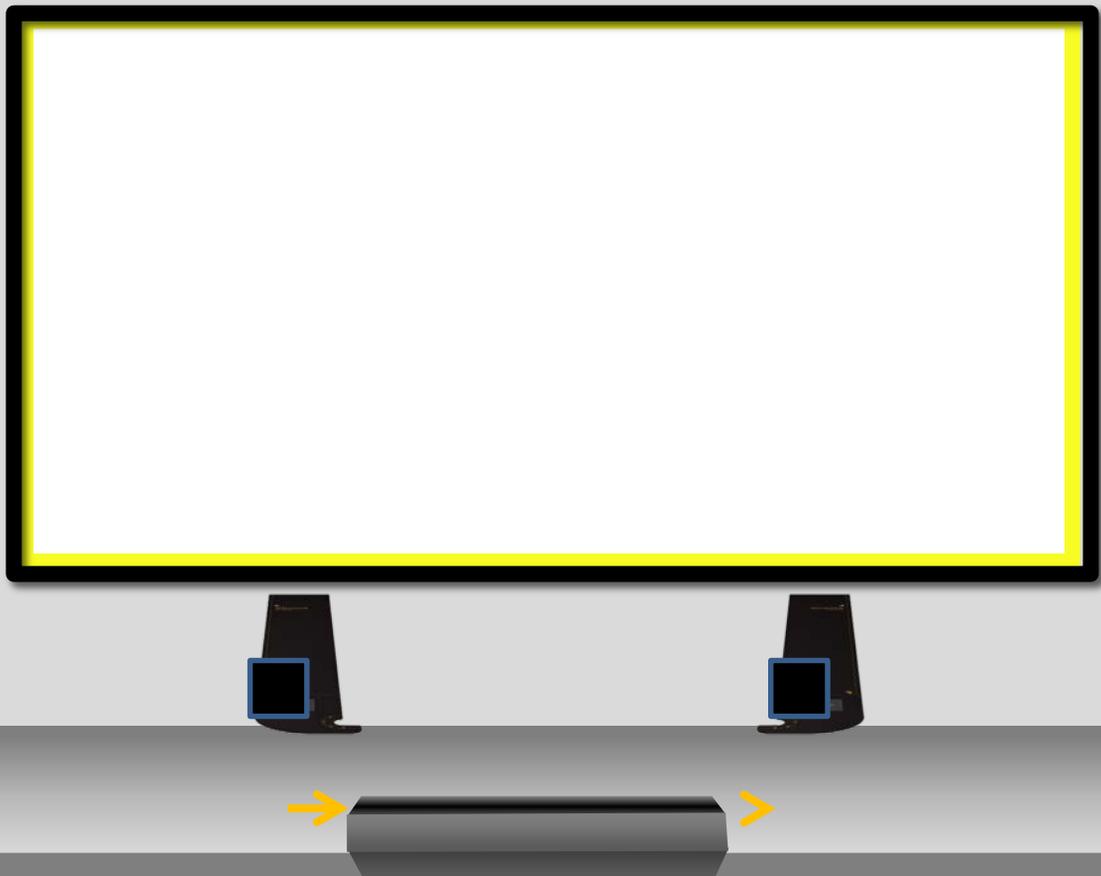


6. Attached the SmartFIT Distance Cards to the bottom of the projector by sliding the Distance Card in from the side (left and right) until you feel the Distance Card hook the rear foot.

NOTE: Instead of using the Distance Cards, the Installation Reference Guide ([page 17](#)) can be used to determine Projector distance from projection surface and offset.

7. Fold the card up or down at a 90-degree angle for the “desired projection method” (see page 4 – SmartFIT Distance Card Info). Move the projector and or entertainment center/table until the Distance Card touches the wall. The entertainment center/table and the projector must be perfectly aligned with the wall. Use the level to ensure the top and sides of the yellow frame is 100% horizontal and the side of the frame is 100% vertical BEFORE proceeding to the next step. **Wall users STOP HERE** – projector is ready for use.

Fixed Frame Screen users, please continue to step 8.



8. Mount the Fixed Frame Screen to the Wall using the yellow screen pattern as a guide.

NOTE: Yellow frame MUST be inside of the Fixed Frame Screen. Due to the depth of some screens it may be necessary to move the Projector back an inch or two.

9. Fixed Frame Screen Installation Tip:

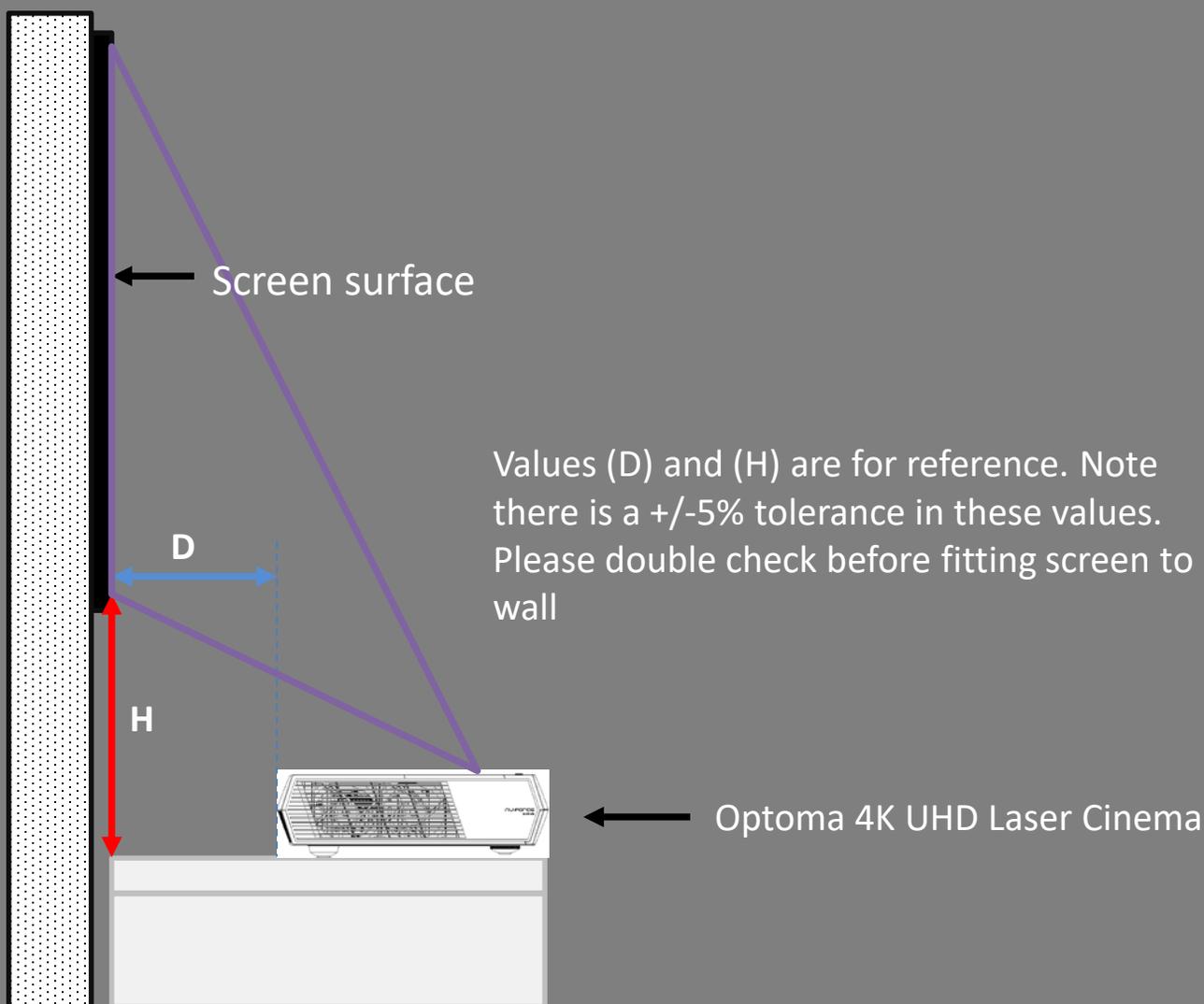
- Most Fixed Frame Screens, including Optoma ALR-101 and ALR-101e include 4 mounting brackets. To ensure the Fixed Frame Screen is flat against the wall and even – use all 4 mounting brackets.

10. Once the Fixed Frame screen has been mounted and secured with all 4 mounting brackets – the projector is ready for viewing.



Installation Reference Chart

	D	H
Screen size (inches)	Distance from the back of the projector to the projection surface (m / inches)	Distance from the bottom of the projector to the bottom of the projected image (m / inches)
85	0.164 / 6.45"	0.332 / 13"
90	0.192 / 7.55"	0.347 / 13.6"
100	0.247 / 9.72"	0.377 / 14.8"
110	0.303 / 11.92"	0.407 / 16"
120	0.358 / 14.09"	0.437 / 17.2"



Supported Model List



CinemaX P1

CinemaX Pro

UHZ65UST

VDPG

P1 - TV

PEF9109 PEF9155 PEF9192

PSF8210 PSF8256 PSF8293

PNF7311 PNF7357 PNF7396

PWF6413 PWF6459 PWF6498

PTF5515 PTF5561 PTF5600

PCF3617 PCF3663 PCF3702

PPF4719 PPF4765 PPF4804 P1

-pro

P1 - GW

PEF9126 PEF9163 PEF9175

PSF8227 PSF8268 PSF8276

PNF7328 PNF7367 PNF7379

PWF6430 PWF6469 PWF6481

PTF5532 PTF5570 PTF5583

PCF3634 PCF3672 PCF3685

PPF4736 PPF4774 PPF4787

P1e -GW

P1 - SW

PEF9130 PEF9165 PEF9171

PSF8231 PSF8270 PSF8272

PNF7332 PNF7369 PNF7375

PWF6434 PWF6471 PWF6477

PCF5536 PCF5572 PCF5579

PTF3638 PTF3674 PTF3681

PPF4740 PPF4776 PPF4783

P1e -SW

P1e -TV

The logo features a white, stylized, curved swoosh that resembles an eye or a lens, positioned above the word "Optoma". The word "Optoma" is written in a bold, italicized, sans-serif typeface.

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