

## **XM2 and XMU**

### **LENS ATTACHMENT KIT INSTALLATION GUIDE**

for Paladin and Phoenix lenses






The **XM2** Plate system attaches directly to many Epson, JVC and Sony home theater projectors OR it can be sandwiched between larger projectors and their ceiling mount.



The **XMU** Plate system integrates with any projector mounted with the *Chief RPA* ceiling mount system (not included).

## XM2 ATTACHMENT KIT – DIRECT ATTACHMENT

The XM2 attachment kit easily attaches Panamorph lenses to the home theater projector models shown below and is also compatible with their ceiling mounts. Epson and JVC projectors include integrated Panamorph mounting holes and most Sony projectors (other than VW5000ES) use the ceiling mounting holes to attach the XM2 directly. If your projector model is not shown please contact [cs@panamorph.com](mailto:cs@panamorph.com). These instructions are only for the attachment kit. See [www.panamorph.com](http://www.panamorph.com) and the Lens Installation Guide for additional information. **Note: Direct attachment is best for projectors positioned at the top of the screen with feet up (ie ceiling mounted) since the XM2 plate may interfere with the lens in a high, feet-down installation.**

 <small>EXCEED YOUR VISION</small>	5040UB, 6040UB, LS10000, LS10500
	All models since 2012 including DLA-RS4500/Z1
	VPL- VW285ES, VW385ES, VW675ES, VW885ES (VW5000ES see “attachment for larger projectors”)

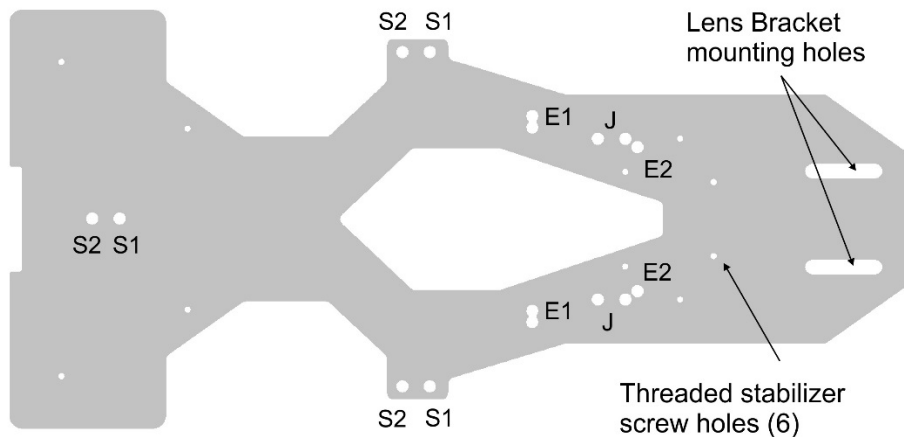
### CONTENTS (in “Kit Parts” box)

- (1) XM2 Plate with these instructions
- (1) Lens Bracket (when attachment kit is included with the lens as a system)
- (1) Driver Kit with 5/32” hex bit and glow ring
  
- (2) Screw, Bracket Attachment 1/4”-20 x 3/4”, black
- (2) Screw, Bracket Attachment (long) 1/4”-20 x 1 5/8”, black
- (2) Screw, Bracket Attachment (X long) 1/4”-20 x 2 3/4”, black
- (2) Screw, Bracket Attachment (XX long) 1/4”-20 x 4”, black
- (2) Spacer, 1” Bracket Attachment 3/4”D x 1” long, black
- (2) Spacer, 2” Bracket Attachment 3/4”D x 2” long, black
- (4) Screw, Lens Bracket #8-32 x 1/4”, black
- (2) Thumb Knob, Bracket Attachment
- (2) Screw, Stabilizer #6-32, 1” black plastic
  
- (2) Screw, Epson/JVC Plate Attachment M4x18mm, silver
- (2) Screw, Epson 6040 Plate Attachment M4x25mm, silver
- (3) Screw, Sony Plate Attachment M5x14mm, silver
- (2) Spacer, Epson LS 1/2” OD, 3/16” long, black
- (2) Spacer, Epson 6040 1/2” OD, 1/2” long, black

## DIRECT ATTACHMENT OF THE XM2 PLATE

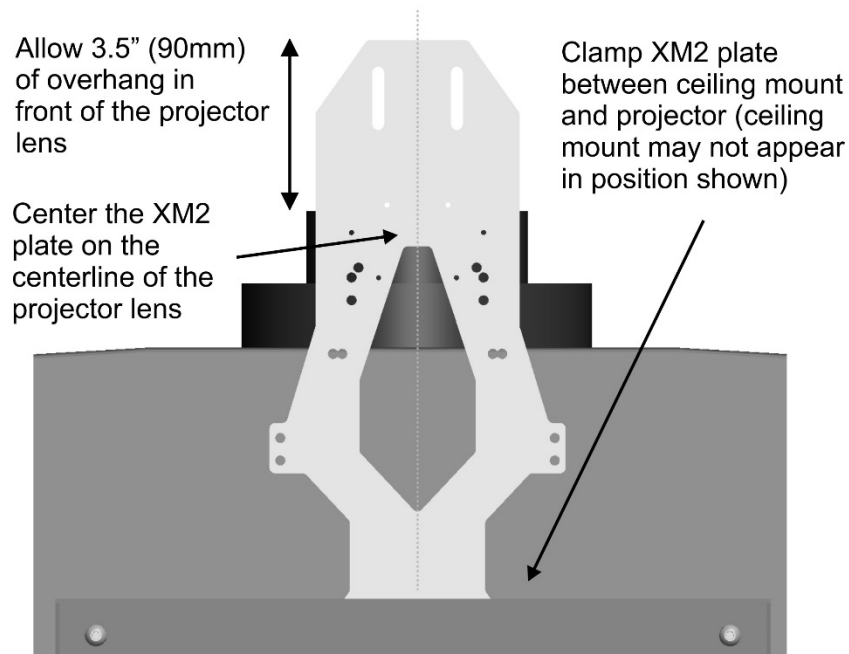
1. Lay the XM2 Plate over the inverted projector to identify the mounting holes according to the designations in the following diagram.

E1, E2	Epson projectors (E2 for 6040)
J	JVC projectors (RS4500 toward XM2 front)
S1	Newer Sony projector models (other than VW5000)
S2	Sony VPL- VW1000ES, VW1100ES



2. EPSON PROJECTORS ONLY. Set the XM2 Plate aside. For Epson 10XXXLS projectors place a 3/16" spacer over each Panamorph mounting hole. For the Epson 6040UB projector, place a 1/2" spacer over each Panamorph mounting hole. Replace the XM2 Plate over the inverted projector without disturbing the spacers.
3. SONY PROJECTORS ONLY. Place the ceiling mount adapter over the XM2 Plate and align with the projector mounting holes. If no ceiling mount is used then add washers (not included) to replace the thickness of the ceiling mount adapter for proper screw length.
4. Insert and tighten the appropriate Plate Attachment Screws through the XM2 Plate and into the projector. **CAUTION: IF THE PLATE ATTACHMENT SCREWS DO NOT FULLY THREAD INTO THE PROJECTOR DO NOT FORCE THEM.** In this case you may need to either use shorter screws or add washers.
5. For EPSON and JVC ceiling mount installations, insert the two plastic stabilizer screws through the XM2 Plate as forward as possible but so that they still make good contact with the projector. Only tighten until they make contact (and no farther). These screws add extra rigidity to the attachment system.
6. Return to the Lens Installation Guide section titled "BEFORE LENS INSTALLATION" for the next step.

## ATTACHMENT OF THE XM2 PLATE BETWEEN A LARGE PROJECTOR AND ITS CEILING MOUNT



This is the most common way of attaching Panamorph lenses to large projection systems such as the Sony VPL-VW5000ES and many Digital Projection models because both the projector and ceiling mount (in particular the Chief VCM ceiling mount shown above) typically have flat surfaces to secure the steel XM2 Plate between them when the ceiling mount installation screws are tightened (make sure the ceiling mount screws have plenty of thread into the projector for a secure installation when adding the 3/16" thickness of the plate!).



There are two alignment guidelines when installing the XM2 this way (see above diagram).

1. Center the XM2 Plate on the center line of the projector lens. Note to first make sure any horizontal lens shift in the projector is neutral.
2. Leave about 3.5" (90mm) of the XM2 Plate overhanging beyond the front of the projection lens (or most forward part of the projector) so there is room to install the Panamorph lens. The XM2 Plate includes slots to fine tune the final distance between the Panamorph lens and the projector lens.

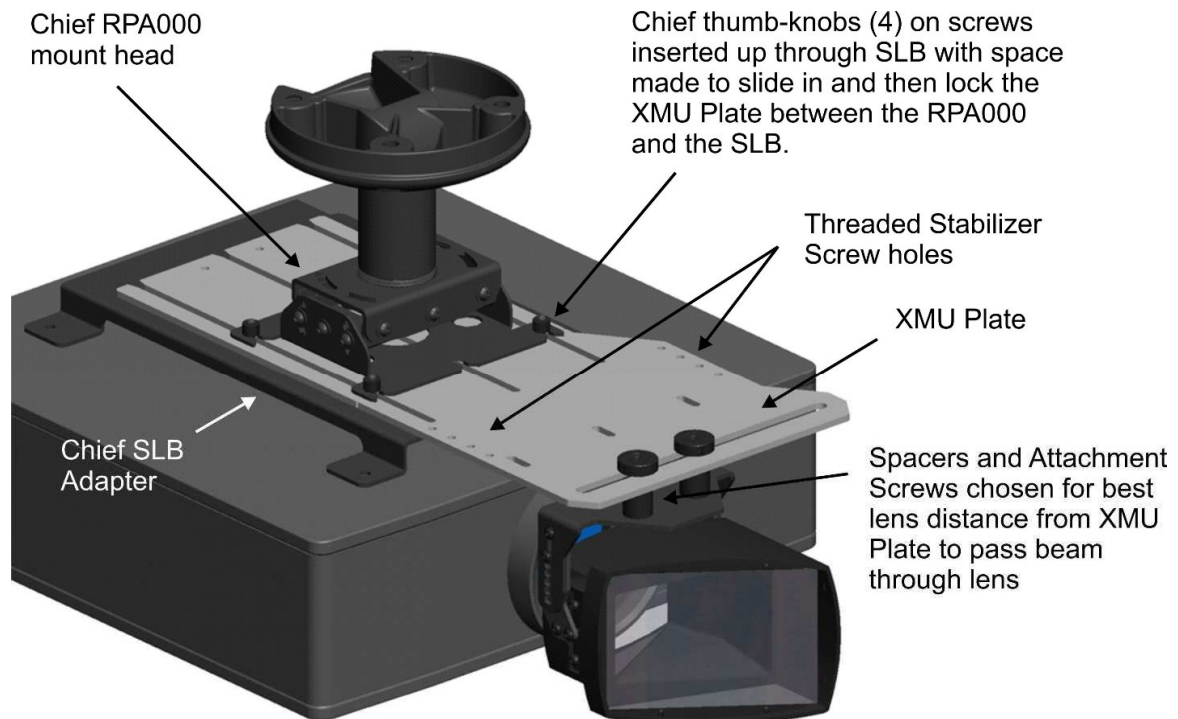
## INSTALLING THE XMU ATTACHMENT KIT

The XMU attachment kit is designed to position the Paladin or Phoenix lens in front of the primary lens of most projectors mounted with the Chief RPA ceiling mount system including Chief's universal or SLB projector adapter (Chief products not included) and **where the projector lens center is no greater than 4" (100m) to the left or right of the center of the ceiling mount pole.** If you have not yet purchased a ceiling mount for your projector, the Chief RPA with dedicated SLB adapter for your projector model is generally the easiest to work with since it requires the least adjustments while installing the XMU Attachment Kit.

Please note that if you are using the universal Chief RPA projector adapter you should take care to set up the arms per the manufacturer's instructions so that the mounting pole is at or just a little in front of (ie toward the screen) the center of gravity of the projector for best balance due to the extra weight of the lens system.

### CONTENTS (in addition to XM2 parts in Kit Parts box)

(4) Screw, Chief SLB Extension	10-24 x 1 1/2", silver
(2) Screw, XMU Stabilizer	1/4"-20 x 1 1/2", black plastic
(4) Spacer, Chief SLB	1/2" OD x 3/8", black



## ATTACHING THE XMU PLATE TO THE CHIEF RPA CEILING MOUNT

1. The Chief RPA ceiling mount may include either the universal Chief spider arm adapter (RPA-U) or the projector-specific Chief SLB projector adapter. In most cases the XMU plate can be installed directly to a projector that has already been ceiling-mounted. However, **if you use an SLB adapter that has edges which are folded up** then a) remove the projector from the Chief RPA000 mount head, b) remove the SLB adapter from the projector, c) replace the four screws in the SLB adapter with the longer #10-24 x 1 1/2" SLB Extension screws (XMU parts), d) place a Chief SLB Spacer (XMU parts) over each screw, then e) remount the projector to the RPA000 mount head per the Chief instructions, leaving the four Chief thumb-knobs somewhat loose but without risk to you or the equipment.
2. Loosen the four Chief thumb-knobs to provide a gap below the RPA000 mount head just large enough to insert the XMU Plate. **Be careful to leave enough screw thread visible above the thumb-knobs to ensure that there is no risk of the projector assembly falling.**
3. Determine which side of the XMU Plate will orient the horizontal slot so that the Lens Bracket (when attached) will be positioned in front of the projector lens. Note that if the projector lens is horizontally centered on the Chief RPA mount then it will not matter which side of the XMU Plate is used. Now slide the XMU Plate from front to back into the gap created in Step 2 just under the Chief RPA head so that the exposed threads of the Chief RPA screws line up with the slots in the XMU Plate. Continue sliding the XMU Plate back about 1/2" (12mm) beyond the rear set of three head screws. Tighten the four thumb-knobs to secure the XMU Plate for now knowing that you will be loosening them again during future steps.
4. Return to the Lens Installation Instructions section titled "BEFORE LENS INSTALLATION" for the next step.