
INSTRUCTION MANUAL

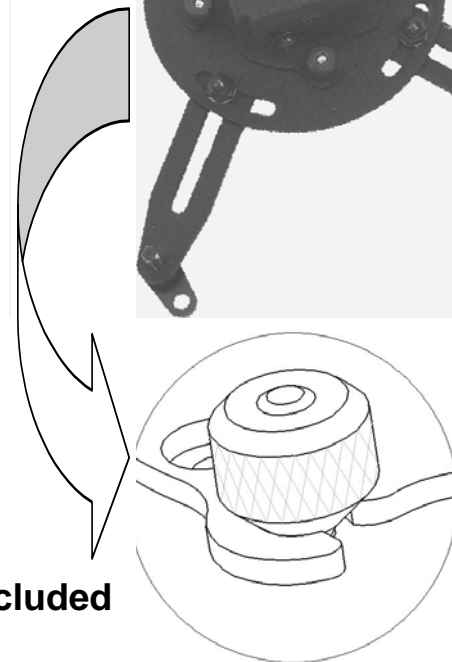
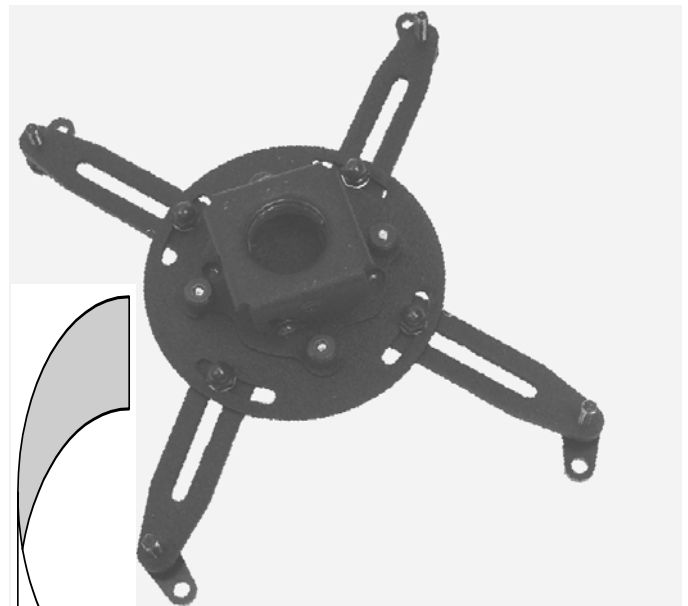
UPA Series LCD/DLP Universal Projector Ceiling Mount

The Chief UPA Series ceiling mounts provide a unique, simplified method of ceiling mounting inverted LCD/DLP projectors. Four mount kit options are available as well as additional accessories for custom solutions.

Chief's low profile design offers two easy mounting methods (1" NPT or flush); roll, pitch and yaw adjustment; a designer cover for a finished look; and allows quick projector disconnect without loss of registration.

The Chief UPA Series ceiling mount is a steel-to-steel construction with adjustable height to maintain proper projector ventilation, holds registration for quick lamp changes and easy filter cleaning without losing registration.

Security can be easily implemented at no additional cost.



All-Points™ Security Option Included

Chief's Exclusive
quick-disconnect thumb nut

BEFORE YOU BEGIN

- The maximum weight to be installed on the UPA ceiling mount is 50 pounds (22.68 Kg).
- **CAUTION:** To prevent damage to the UPA, which could affect or void the Factory warranty, thoroughly study all instructions and illustrations before you begin to install the UPA. Pay particular attention to the "Important Precautions" on Page 1.
- If you have any questions about this installation, contact Chief Manufacturing at 1-800-582-6480.



IMPORTANT WARNINGS AND CAUTIONS!

- WARNING:** A **WARNING** alerts you to the possibility of serious injury or death if you do not follow the instructions.
- CAUTION:** A **CAUTION** alerts you to the possibility of damage or destruction of equipment if you do not follow the corresponding instructions.
- **WARNING: Improper installation can result in serious personal injury! Make sure that the structural members can support a redundant weight factor *five times the total weight of the equipment*. If the structure can not support this weight, reinforce the structure before installing the UPA.**
 - **CAUTION:** Inspect the unit for shipping damage. See “DIMENSIONAL DRAWING” on page 2

TOOLS REQUIRED FOR INSTALLATION

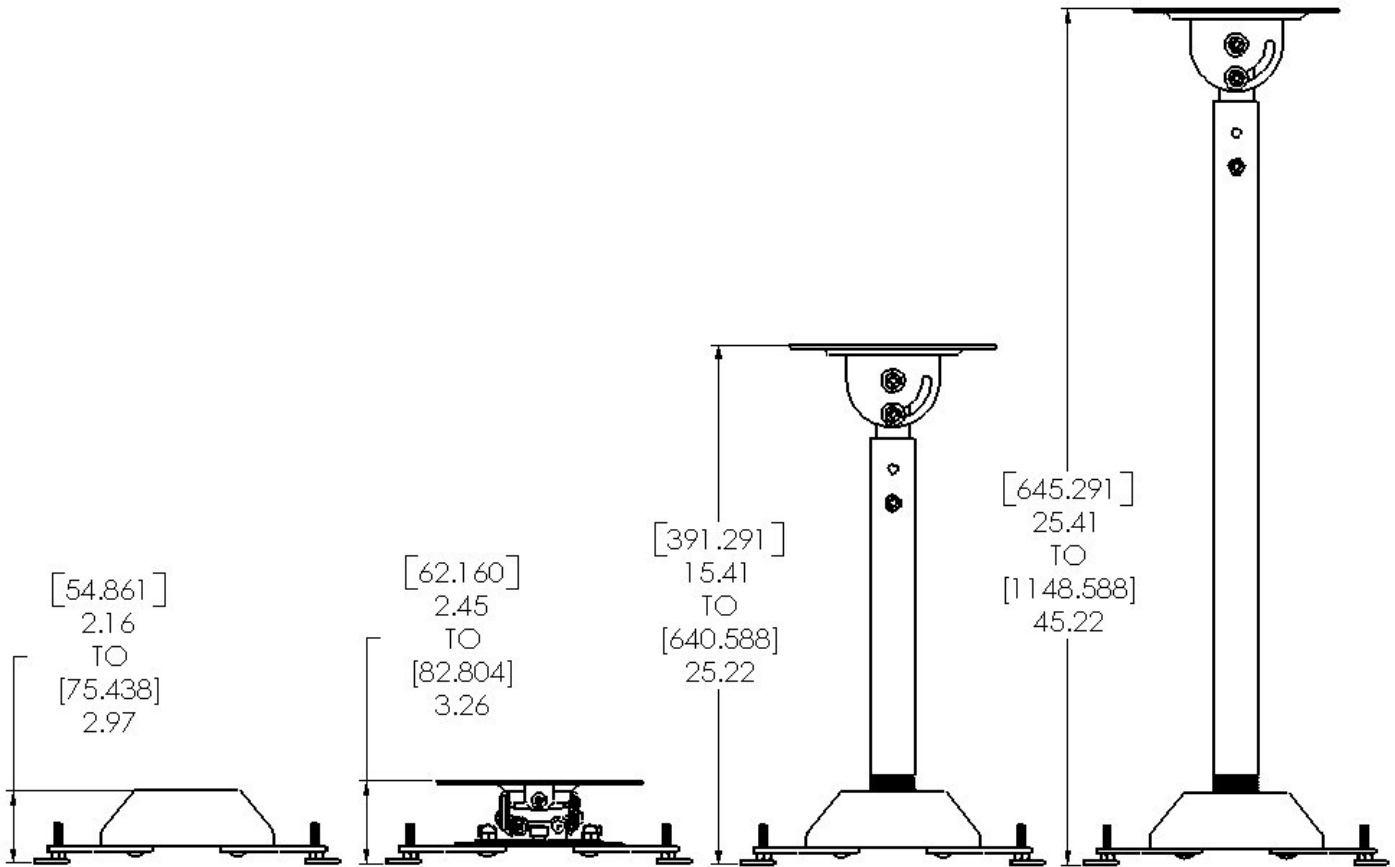
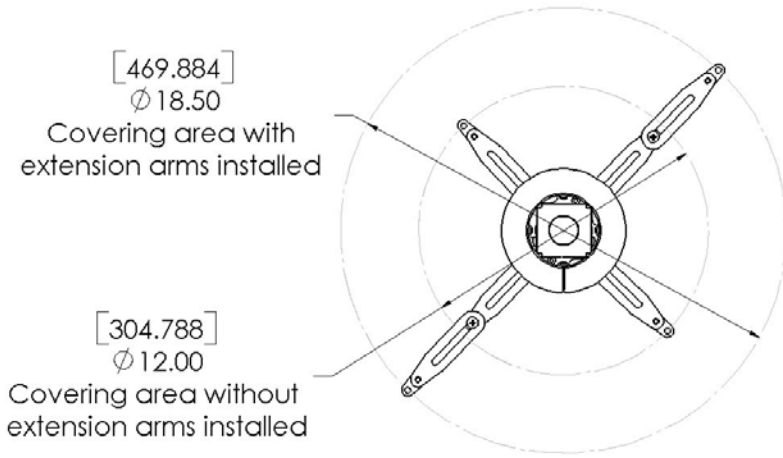
- Open End Wrenches (M10 & M12)
- Phillips screwdrivers, No. 1 and No. 2
- Allen Wrench (provided)
- Security Allen Wrench (provided)

NOTE: Other tools may be required depending on the method of installation.

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DIMENSIONAL DRAWING



INSPECT THE UNIT BEFORE INSTALLING

1. Carefully inspect the UPA for shipping damage. If any damage is apparent, call your carrier claims agent and do not continue with the installation until the carrier has reviewed the damage.

NOTE: Read all instructions before starting installation.

2. Lay out components to ensure you have all the required parts before proceeding (see “PARTS” on page 10).

PREPARE THE CEILING

Because of the wide variety of possible mounting situations, Chief Manufacturing can only provide general guidelines for installation. Study the following information carefully, and adapt it as necessary to fit your specific installation.

WARNING: Be especially aware of the weight of the equipment, and the potential for personal injury or of damage to the equipment if it is not adequately mounted.

The “General Guidelines” below and the information on the following pages cover the most common mounting situations:

- Suspended from a 1” diameter NPT threaded pipe secured to a structural cross brace in the ceiling.
- Standard fasteners secured to a wood framing member.

General Guidelines

- Carefully determine the position of the mount, and its distance from the screen. This will require knowing the lens to screen distance (see projector specifications for set-up).

WARNING: Improper installation can result in serious personal injury! To avoid such injury, make sure the structural members can support a redundant weight factor *five times* the total weight of the equipment you intend to support overhead. If they cannot, the structure must be reinforced before you install the mount.

UPA BOTTOM PORTION ATTACHMENT PROCEDURES

Attach the bottom portion of the UPA to the projector as follows.

1. Loosen, but do not remove, acorn nuts securing arms of the UPA (see Figure 1).
2. If necessary, add an extension to the arms (see Figure 2).
3. Adjust front and back legs to mounting points. If there are only three mounting points, remove one leg from the mount.
4. Adjust inserts (rotate right to raise, left to lower), making sure to allow for proper air ventilation and the mount is level with the projector [some inserts may need to be at different heights to keep the mount level (M3, M4, M5 and M6 screws and washers included)] (see Figure 3).
5. If the mounting holes are closer than a five inch diameter, raise the feet all the way up so they will swing under the round plate.

WARNING: You must use proper attaching hardware and installation procedures. Failure to use proper attaching hardware and installation procedures may result in equipment damage or serious personal injury.

6. Determine proper screw size and depth (M3, M4, M5 and M6 included) for projector mounting and correct washers (M3, M4, M5 and M6 included). If proper screw size is not included with this unit, you must purchase the proper attaching hardware separately.
7. Secure (loosely) back two legs of UPA to the projector at mounting locations.
8. Secure (loosely) front two legs of UPA to the projector at mounting locations.
9. Move UPA to the center of gravity of the projector.
10. Make sure the threaded studs on the round plate is centered on the front and one to the back center of the projector (see Figure 1).
11. Tighten screws and acorn nuts securing the legs of the UPA.
12. Tighten hex nuts on the threaded studs to secure inserts at proper positions.
13. Depending upon your application, proceed to "ATTACH 1" NPT PIPE TO ANGLED CEILING PLATE" on page 5, "CEILING INSTALLATION PROCEDURES" on page 6, "1" Diameter NPT Threaded Pipe (UPA-1000 Only)" on page 6, or "Standard Fasteners Flush Mounting to a Wood Framing Member (UPA-1001 Only)" on page 6.

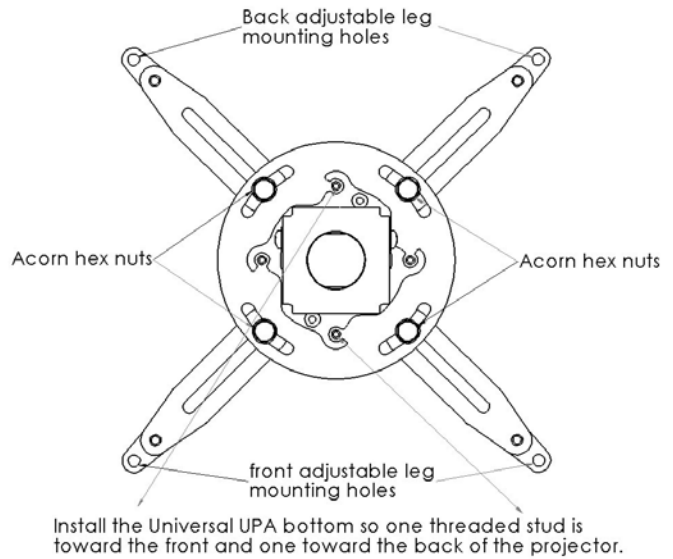


Figure 1. UPA Acorn Nuts

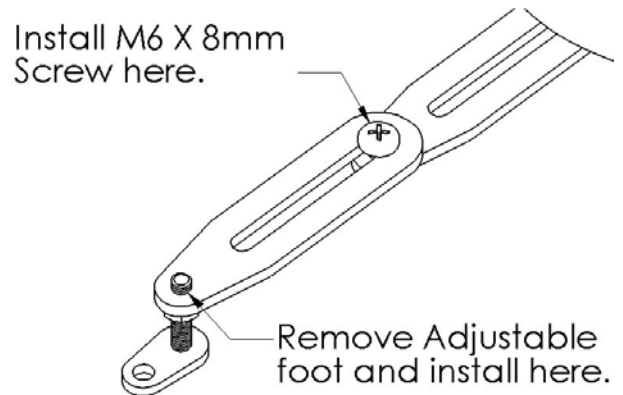
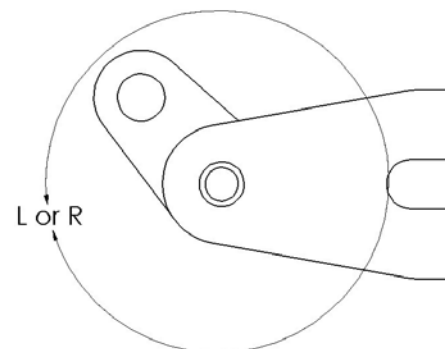


Figure 2. Add Extension Arms



Rotate adjustable foot left or right to make it taller or shorter, each rotation is .0625" (.1587mm)

Figure 3. UPA Adjustable Feet

ATTACH 1" NPT PIPE TO ANGLED CEILING PLATE

(UPA-1002 AND UPA-1003 ONLY)

1. Select the angled ceiling plate, inner adjustable pole, washers, bolts and nuts for assembling the pipe and ceiling plate (see Figure 4).
2. Place the inner adjustable pole between the uprights of the angled ceiling plate, aligning the hole in the pole with the holes and slots in the upright.
3. Install a washer on each of the two 1/4-20 x 1.75" bolts and insert the bolts through the slots and holes in the uprights and the holes in the pole.
4. Install a washer and 1/4-20 nut on the other side of the 1/4-20 x 1.75" bolt, leaving them loosely installed for now.
5. See "CEILING INSTALLATION PROCEDURES" on page 6.

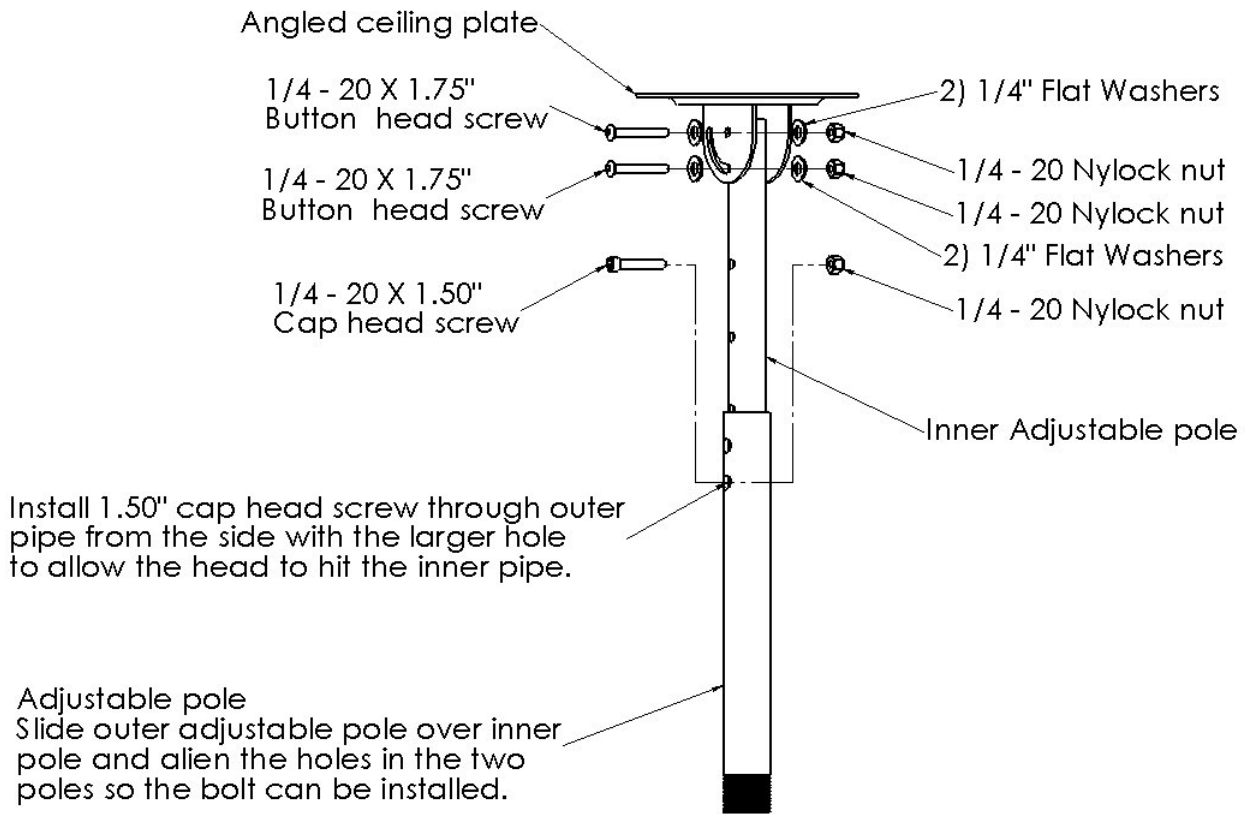


Figure 4. PIPE TO ANGLED PLATE

CEILING INSTALLATION PROCEDURES

There are two methods for installing the UPA Series LCD/DLP ceiling mount. The UPA can be suspended from a 1" diameter NPT threaded pipe or standard fasteners secured to a wood framing member.

WARNING: Improper installation can cause serious personal injury! Make sure the structural members can support a redundant weight factor five times the total weight of the equipment you intend to support overhead. The structure must be reinforced before you install the UPA if the structure cannot support a redundant weight factor five times the total weight of the equipment.

1" Diameter NPT Threaded Pipe (UPA-1000 Only)

Installation using a 1" diameter schedule 40 steel pipe section with 1" NPT threads requires securing the pipe to the building structure. We suggest the use of a Chief UMA ceiling plate to secure the pipe to a structural member (see Figure 5 and Figure 6). Install the UPA on the pipe as follows:

1. Thread the UPA onto the pipe a minimum of 3/8" to allow for final yaw adjustment.
2. Using Allen wrench provided, tighten the set screw to lock the UPA in position (see Figure 7).
3. Proceed to "BRACKET ATTACHMENT PROCEDURES" on page 7.

Flush Mount Plate to UPA (UPA-1001 Only)

1. Remove set screw (see Figure 7).
2. Place flush plate over UPA, lining holes in plate with holes in UPA.
3. Secure using the 2 5/16-18 x 1/2" button head cap screw provided.

Standard Fasteners Flush Mounting to a Wood Framing Member (UPA-1001 Only)

The UPA can be secured to a wood framing member through two larger round holes in the ceiling bracket using two 3/8" lag screws for single stud mounting, four slotted holes in the ceiling bracket using four 1/4" diameter lag screws or, if the area is accessible from above, using four 1/4" diameter machine bolts, nuts, and washers (see Figure 8). Install the UPA as follows:

1. Secure the ceiling bracket to the wood framing member (see Figure 8 and Figure 9).
2. Proceed to "BRACKET ATTACHMENT PROCEDURES" on page 7.

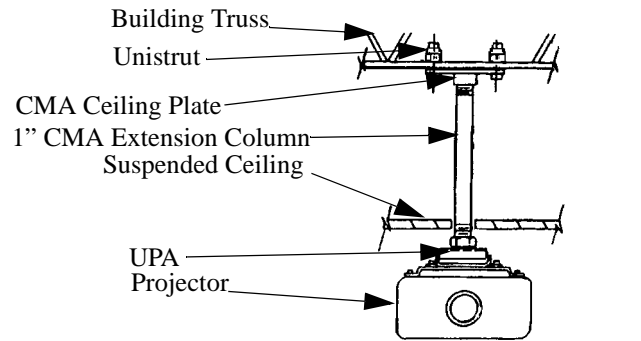


Figure 5. Example Using Pipe (1")

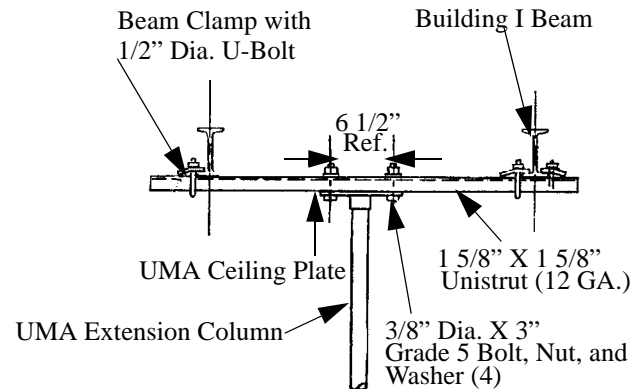


Figure 6. Pipe (1") Side View

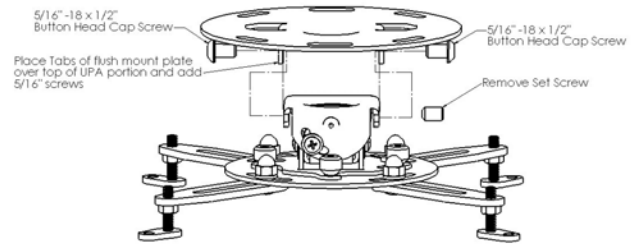


Figure 7. Attach Top Plate

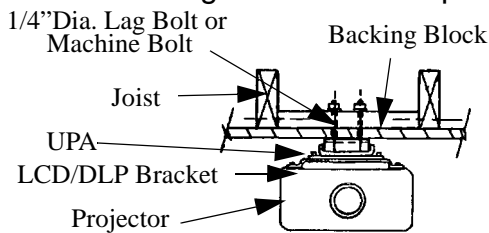


Figure 8. Example Using Lag Bolts or Machine Bolts

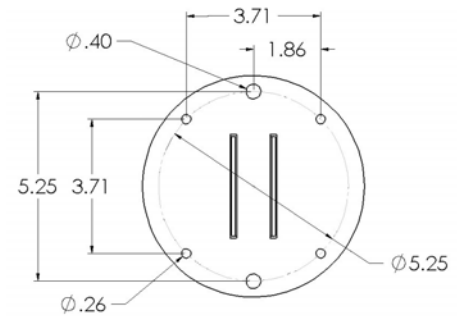


Figure 9. Ceiling Plate Hole Pattern

BRACKET ATTACHMENT PROCEDURES

All LCD/DLP brackets attach to the UPA lifting and rotating screws of the bracket into the slot and four vee slots of the UPA. Secure the bracket using provided thumb screws and route cabling as necessary. Install the UPA on the bracket as follows:

NOTE: It is not necessary to remove the thumb nuts from the studs to install and remove the projector.

1. Install, loosely, the 10-24 thumb nuts on the 10-24 studs of the UPA.
2. Align the four locating slots of the UPA with the 10-24 studs of the bracket and rotate the bracket on the UPA to the limit of the slotted holes.

NOTE: The tapers of the thumb nuts should seat in the holes of the bracket.

3. Secure the Bracket to the UPA using the thumb nuts (tapered side down).
4. Route cables as necessary.
5. For UPA-1002 and UPA-1003 (pole mount models), wire tie the wires at the top and bottom of the pole.
6. Cut round black wire wrap cover to desired length, using a scissors or appropriate tool, to cover exposed wiring.
7. Install round black wire wrap cover over exposed wiring.

ALL-POINTS™ SECURITY

Install All-Points security as follows:

1. For model UPA-1000, remove 9 screws (A through I) (see Figure 10).
2. For model UPA-1001, remove 10 screws (A through J) (see Figure 11).
3. For model UPA-1002 and UPA-1003, remove 11 screws (A through K) (see Figure 12).

NOTE: You must retain the Security Allen Wrench if security screws are installed. Do not discard this wrench or leave it where unauthorized persons have access to your Security Allen Wrench.

4. Using security wrench (provided), replace screws (A through I, A through J or A through K) with security screws provided in the All-Points Security Kit.

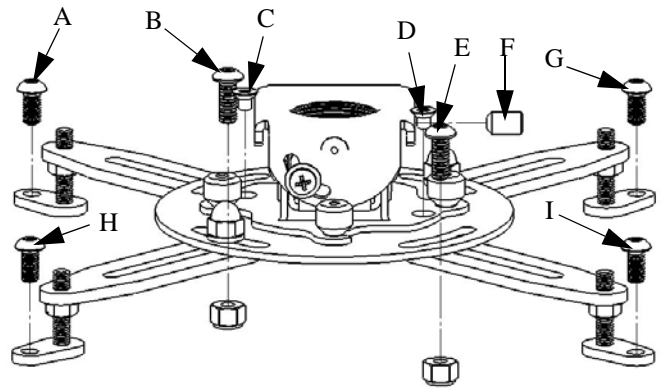


Figure 10. Remove and Replace Screws and Set Screw For UPA-1000

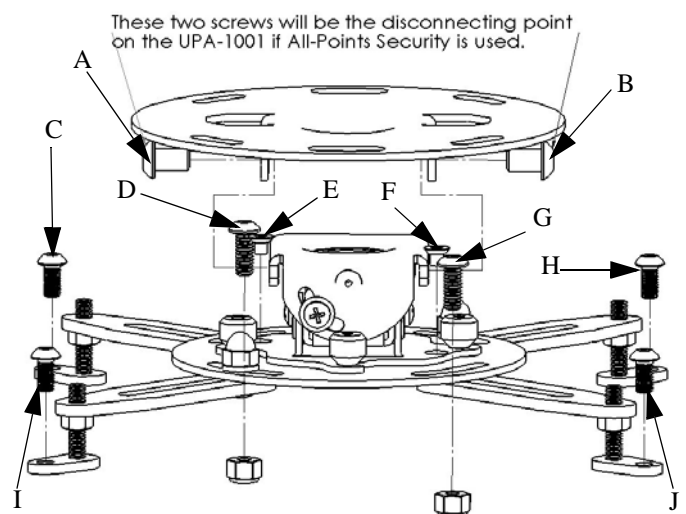


Figure 11. Remove and Replace Screws and Set Screw For UPA-1001

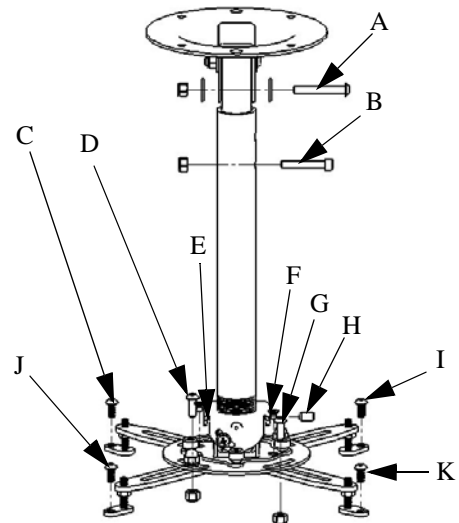


Figure 12. Remove and Replace Screws and Set Screw For UPA-1002 & UPA-1003

PROJECTOR ALIGNMENT INSTRUCTIONS

The UPA can be adjusted for vertical elevation (pitch), horizontal tilt (roll), and rotation (yaw). Once the desired position is located and all the screws of the UPA are tightened, the projector may be removed from its location and replaced using the four thumb screws without losing the registration of the projector. Align the projector as follows:

Pitch

Adjust pitch using the 10-24X3/8" pitch adjustment screws located on each side of the adjustment plate. Adjust pitch as follows:

1. Loosen the 10-24X3/8" pitch adjustment screws located on each side of the adjustment plate (see Figure 13).
2. Adjust projector angle to desired pitch.
3. Tighten the 10-24X3/8" pitch adjustment screws located on each side of the adjustment plate.

Roll

Adjust roll using the 10-24X3/8" roll adjustment screws, one on the front and one on the back, of the adjustment plate. Adjust roll as follows:

1. Loosen the 10-24X3/8" roll adjustment screws on each side of the adjustment plate (see Figure 14).
2. Adjust projector to desired roll position.
3. Tighten the 10-24X3/8" roll adjustment screws on each side of the adjustment plate.

Yaw

Adjust yaw by threading or unthreading the UPA on the 1" pipe. Adjust yaw as follows:

1. Loosen the set screw (see Figure 15).

WARNING: Do not turn the UPA to the end of the pipe threads. The UPA, bracket, and projector will fall from the pipe if the UPA is unthreaded too far.

2. Adjust projector by turning the UPA on the 1" pipe to the desired yaw position.
3. Tighten the set screw.

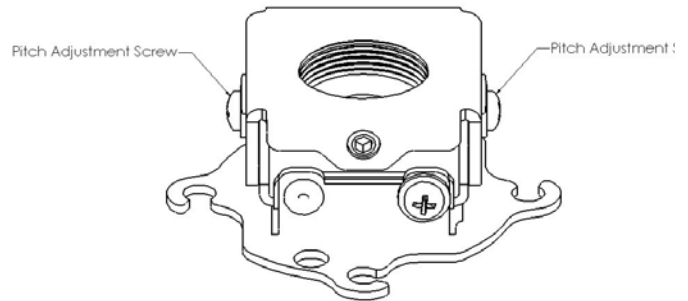


Figure 13. Pitch Adjustment Screws

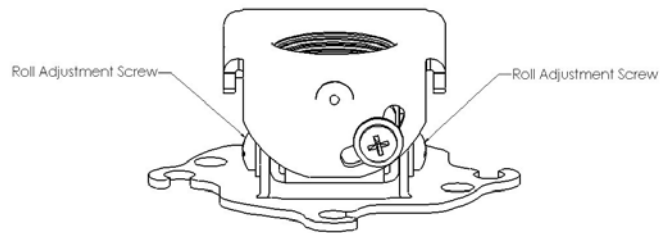


Figure 14. Roll Adjustment Screws

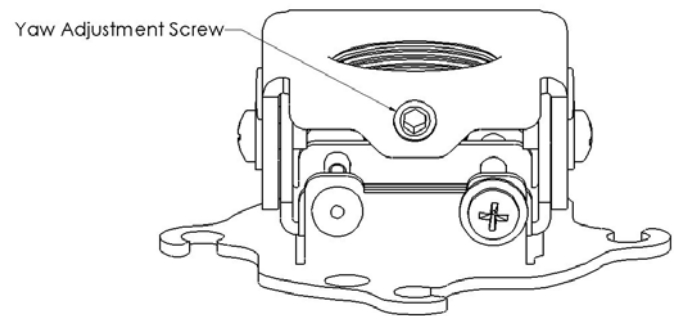


Figure 15. Yaw Adjustment Screw

DESIGNER COVER INSTALLATION

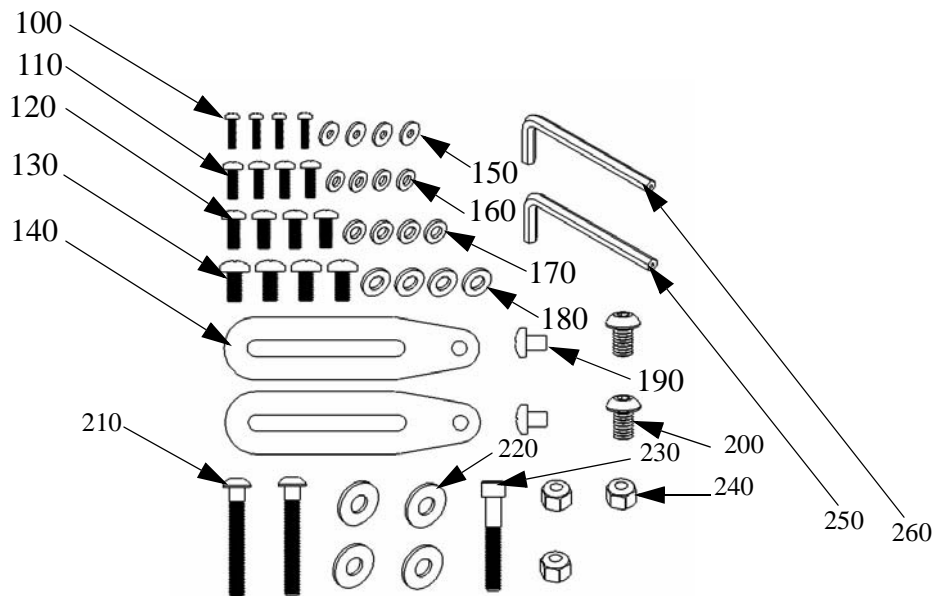
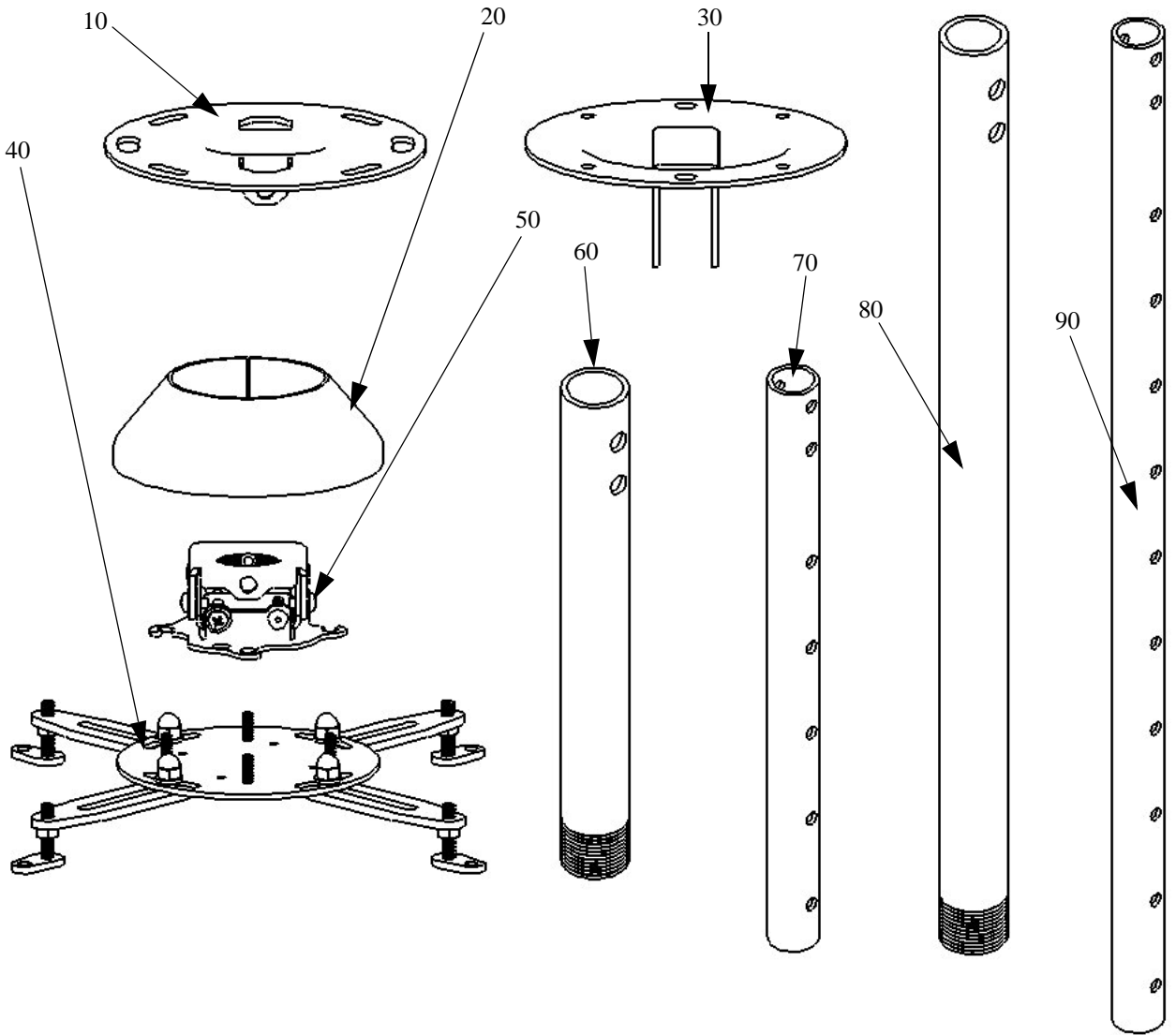
For Models UPA-1000, UPA-1002 and UPA-1003 only, install the designer cover as follows:

1. Flex designer cover apart at the seam just enough to fit over 1"NPT pipe.
2. Install designer cover on 1"NPT pipe.
3. Flex designer cover back together until the seam edges match. We suggest aligning the seam in the least visible location and installing a small piece of tape to secure the seam.

PARTS

Table 1: Parts

Item	Nomenclature	Qty.
10	Flush Mount Bracket (UPA-1001 only)	1
20	Plastic Designer Cover (UPA-1000, UPA-1002 and UPA-1003 only)	1
30	Angled Ceiling Plate Bracket (UPA-1002 and UPA-1003 only)	1
40	Bottom UPA Adjustable Projection Portion (All UPA models)	1
50	Top UPA Adjustable 1" NPT portion (All UPA models)	1
60	Short Outer Adjustable 1" NPT Pipe (UPA-1002 only)	1
70	Short Inner Adjustable 1" NPT Pipe (UPA-1002 only)	1
80	Long Outer Adjustable 1" NPT Pipe (UPA-1003 only)	1
90	Long Inner Adjustable 1" NPT Pipe (UPA-1003 only)	1
100	M3 x 12mm Phillips Head Pan Screw (All UPA models)	4
110	M4 x 12mm Phillips Head Pan Screw (All UPA models)	4
120	M5 x 12mm Phillips Head Pan Screw (All UPA models)	4
130	M6 x 12mm Phillips Head Pan Screw (All UPA models)	4
140	Adjustable Extension Arm (All UPA models)	2
150	M3 Flat Washer (All UPA models)	4
160	M4 Flat Washer (All UPA models)	4
170	M5 Flat Washer (All UPA models)	4
180	M6 Flat Washer (All UPA models)	4
190	M6 x 8mm Phillips Pan Screw (All UPA models)	2
200	5/16-18 x 1/2" Button Head Cap Screw (UPA-1001 only)	2
210	1/4-20 x 1 3/4" Button Head Cap Screw (UPA-1002 and UPA-1003 only)	2
220	1/4" Flat Washer (UPA-1002 and UPA-1003 only)	4
230	1/4-20 x 1 1/2" Cap Head Screw (UPA-1002 and UPA-1003 only)	1
240	1/4-20 Nylock Nut (UPA-1002 and UPA-1003 only)	3



ALL-POINTS SECURITY PARTS

Item	Nomenclature	Qty.
500	M3 x 12mm Button Head Security Cap Screw	4
510	M4 x 12mm Button Head Security Cap Screw	4
520	M5 x 12mm Button Head Security Cap Screw	4
530	M6 x 12mm Button Head Security Cap Screw	4
540	10-24 x 1/4" Flat Head Undercut Security Screw	2
550	M6 x 8mm Button Head Security Cap Screw	2
560	5/16-18 x 1/2" Button Head Security Cap Screw (UPA-1001 only)	2
570	1/4-20 x 5/8" Button Head Security Cap Screw	2
580	1/4-20 x 1 3/4" Button Head Security Cap Screw (UPA-1002 and UPA-1003 only)	1
590	1/4-20 x 1 1/2" Security Cap Screw (UPA-1002 and UPA-1003 only)	1
600	3/32" Security Hex Key	1
610	5/32" Security Hex Key	1
620	3/16" Security Hex Key (UPA-1001, UPA-1002 and UPA-1003 only)	1
630	1/4-20 Nylock Nut	2
640	5/16-18 Security Set Screw (UPA-1000, UPA-1002, UPA-1003 only)	1

