

Mounting



Solutions

Installation Instructions

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*Universal*  
**Projector Ceiling Mount**  
for DLP and LCD Projectors



iC-PR-IA1



## 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 mount.
- **WARNING:** The combined weight of the mount and accessories must not exceed 50 lbs (22.68 kg), the maximum load capacity of the mount.
- **CAUTION:** Inspect the unit for shipping damage.

## TOOLS REQUIRED FOR INSTALLATION

- Open End Wrenches (M10, M11 & M12)
- Phillips screwdrivers (No. 1 and No. 2)
- Allen Wrench (provided)
- Drill and bit set
- Security Allen Wrench (provided)

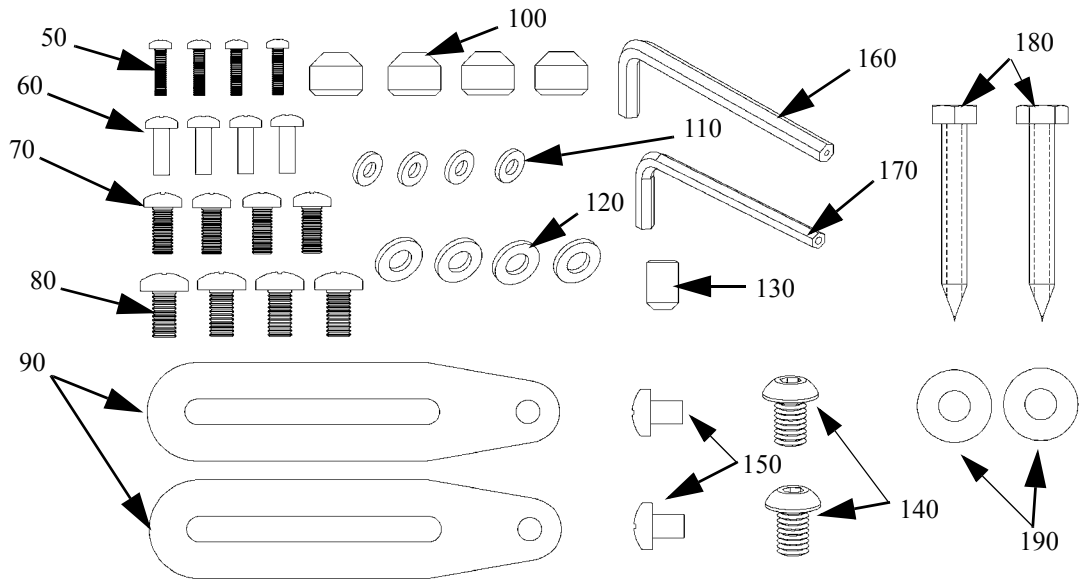
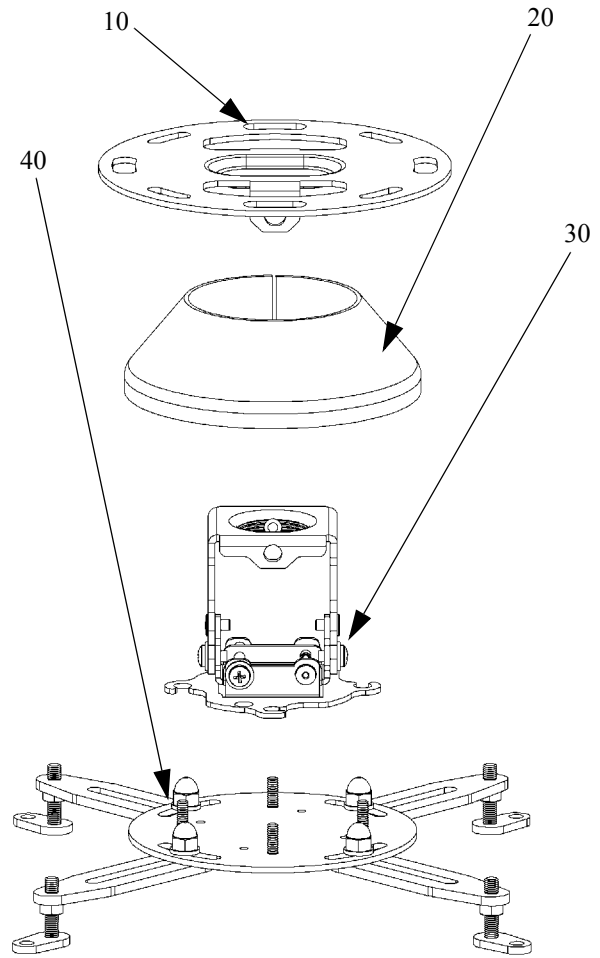
**NOTE:** Other tools may be required depending on the method of installation.

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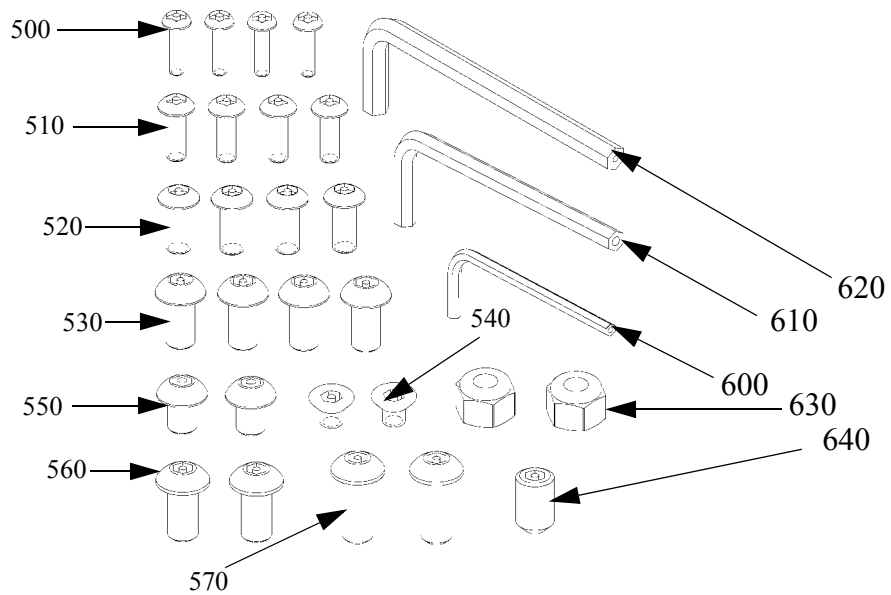
# PARTS

Item	Nomenclature	Qty
10	Ceiling Plate	1
20	Designer Cover	1
30	Adjustment Bracket (Adjustable 1" NPT)	1
40	Universal UPA	1
50	M3 x 10mm Phillips Head Pan Screw	4
60	M4 x 12mm Phillips Head Pan Screw	4
70	M5 x 12mm Phillips Head Pan Screw	4
80	M6 x 12mm Phillips Head Pan Screw	4
90	Adjustable Extension Arm	2
100	Thumb Nuts	4
110	M4 Flat Washer (use with M3 and M4 screws)	4
120	M6 Flat Washer (use with M5 and M6 screws)	4
130	5/16-18 x 1/2" Set Screw	1
140	5/16-18 x 1/2" Button Head Cap Screw	2
150	M6 x 8mm Phillips Pan Screw	2
160	Allen Key, 3/16"	1
170	Allen Key, 5/32"	1
180	1/4" Lag Screw, 3" Long	2
190	1/4" Flat Washer	2
200	CMA Fixed Extension Column (not provided)	1
210	Ceiling Plate, UMA-1025 (not provided)	1



# SECURITY PARTS KIT

Item	Nomenclature	Qty
500	M3 x 10mm 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	2
570	1/4-20 x 5/8" Button Head Security Cap Screw	2
600	3/32" Security Hex Key	1
610	5/32" Security Hex Key	1
620	3/16" Security Hex Key	1
630	1/4-20 Nylock Nut	2
640	5/16-18 Security Set Screw	1



## INSPECT THE UNIT

1. Carefully inspect the mount for shipping damage. If any damage is apparent, call Chief Manufacturing and our customer service department will assist you.

**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 4.).

## GENERAL INFORMATION

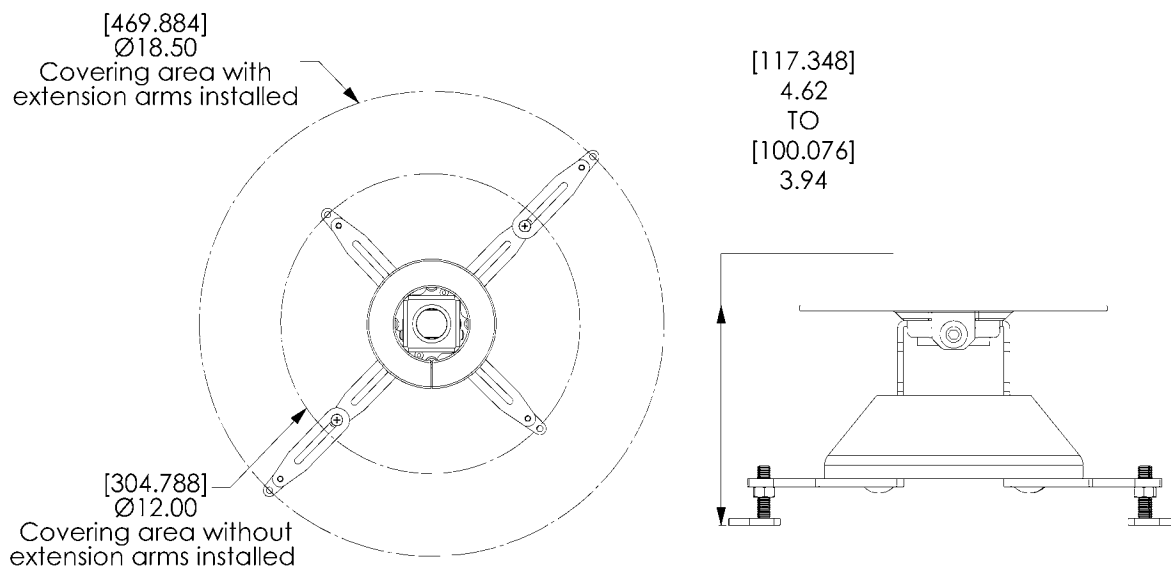
There are two common methods for installing the projector ceiling mount, as follows:

- **Option A.** Install the projector ceiling mount using the flush mounted method. The ceiling plate will be mounted to a wood framing member in the ceiling. Standard fasteners will be used to secure the mount. (See page 8.)
- **Option B.** Install the projector ceiling mount using a 1-inch diameter NPT threaded pipe secured to a structural wood framing member in the ceiling. (See page 9.)

**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.**

**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.**

## DIMENSIONAL DRAWING



## INSTALL UNIVERSAL UPA

Install Universal UPA (hereinafter called “the mount”) onto the projector as follows.

1. Loosen, but do not remove, acorn nuts securing arms of the mount (see Figure 1).
2. If needed, add an extension to the arms (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).
7. Secure (loosely) back two legs of the mount to the projector at mounting locations.
8. Secure (loosely) front two legs of the mount to the projector at mounting locations.
9. Move mount to the center of gravity of the projector.
10. Make sure the threaded studs on the round plate are 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 mount.
12. Tighten hex nuts on the threaded studs to secure inserts at proper positions.
13. See “INSTALL CEILING MOUNT (FLUSH MOUNT)” on page 8.

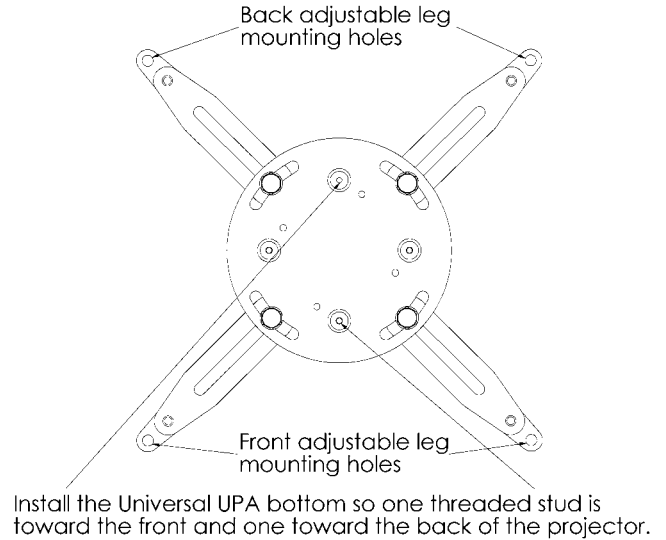


Figure 1. Acorn Nuts

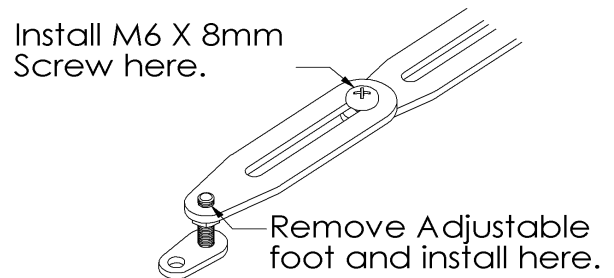
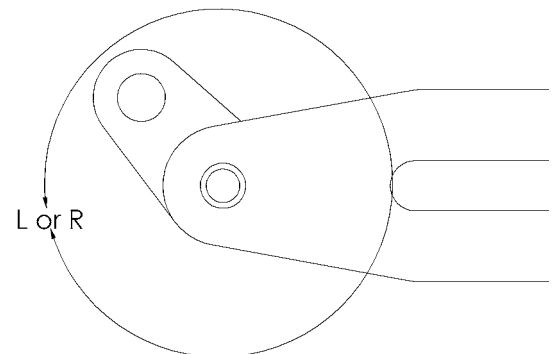


Figure 2. Add Extension Arms



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

Figure 3. Adjustable Feet

## INSTALL CEILING MOUNT (FLUSH MOUNT)

**NOTE:** Read the Warnings and Cautions on page 2.

### Attach Adjustable Bracket to Ceiling Plate

1. Place ceiling plate over adjustable bracket, lining holes in plate with holes in mount (see Figure 4).
2. Secure using the two 5/16" 18 x 1/2" button head cap screw provided (see Figure 5).

### Install Ceiling Mount

Select one of the following options to install the ceiling mount onto a wood framing member.

- Use two 1/4" lag screws and two 1/4" flat washers for single stud mounting through two larger round holes (see Figure 6).
- If the area is accessible above the wood framing member, use four 1/4" diameter machine bolts, four nuts, and four washers (see Figure 6).

Install the mount as follows:

1. Secure the ceiling bracket to the wood framing member (see Figure 6).
2. Proceed to "ATTACH UNIVERSAL UPA TO MOUNT" on page 10.

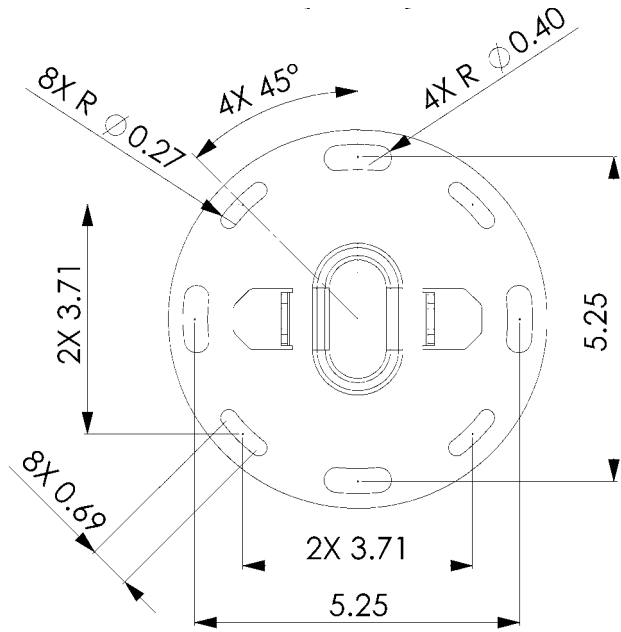


Figure 4. Ceiling Plate Hole Pattern

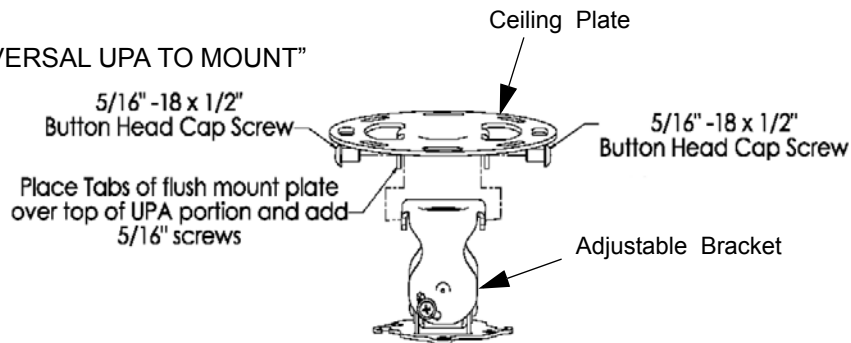


Figure 5. Attach Adjustable Bracket to Ceiling Plate

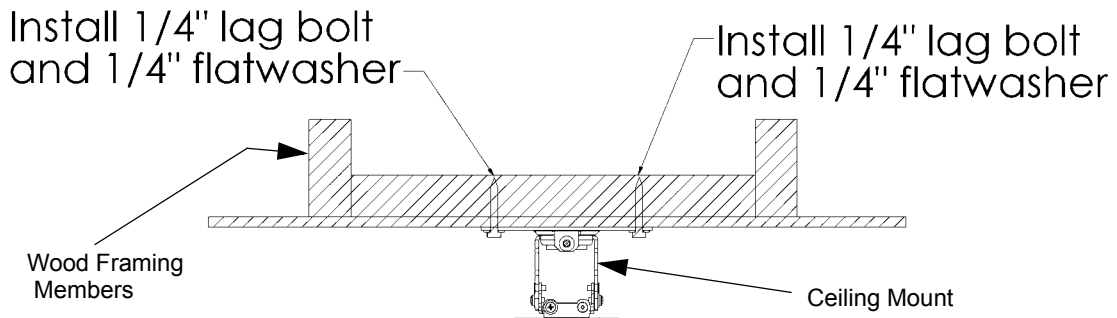


Figure 6. Example Using Lag Bolts or Machine Bolts



## INSTALL CEILING MOUNT (USING 1" DIA. NPT PIPE COLUMN)

**NOTE:** Read the Warnings and Cautions on page 2.

**NOTE:** Installation using a 1" diameter schedule 40 steel pipe section with 1" NPT threads requires securing the pipe to the building structure. To simplify the installation, use a UMA ceiling plate to secure the pipe to a structural member.

### Attach NPT Pipe to Ceiling Plate

1. Thread the 1" pipe into the ceiling bracket until pipe threads are flush with the top of the ceiling plate (see Figure 7).
2. Install the 10-24 x 3/32" set screw into the threaded hole in the ceiling plate.

**NOTE:** The set screw must be installed to prevent movement of the NPT pipe.

3. Tighten the set screw to lock the pipe in position.

### Attach NPT Pipe to Universal UPA

1. Thread the pipe into the Universal UPA until the pipe threads are visible below the collar in the UPA (see Figure 7).

**NOTE:** The pipe must be threaded into the Universal UPA a minimum of 3/8" to allow for final yaw adjustment.

2. Install 3/16" set screw into the back-to-back threaded holes in the Universal UPA (see Figure 7).

**NOTE:** The set screw must be installed to prevent movement of the NPT pipe.

3. Tighten the set screw to lock the pipe in position.

### Install Ceiling Mount

Install the ceiling mount, as follows:

1. Using a pencil and the ceiling plate (see Figure 8) as a template, mark the locations for two diagonal mounting holes on the wood framing member.
2. Using a 5/16" drill bit, drill two pilot holes into a wood framing member on the ceiling.
3. Secure the ceiling plate by installing two 1/4" lag screws and two 1/4" flat washers into the pilot holes drilled in Step 2.

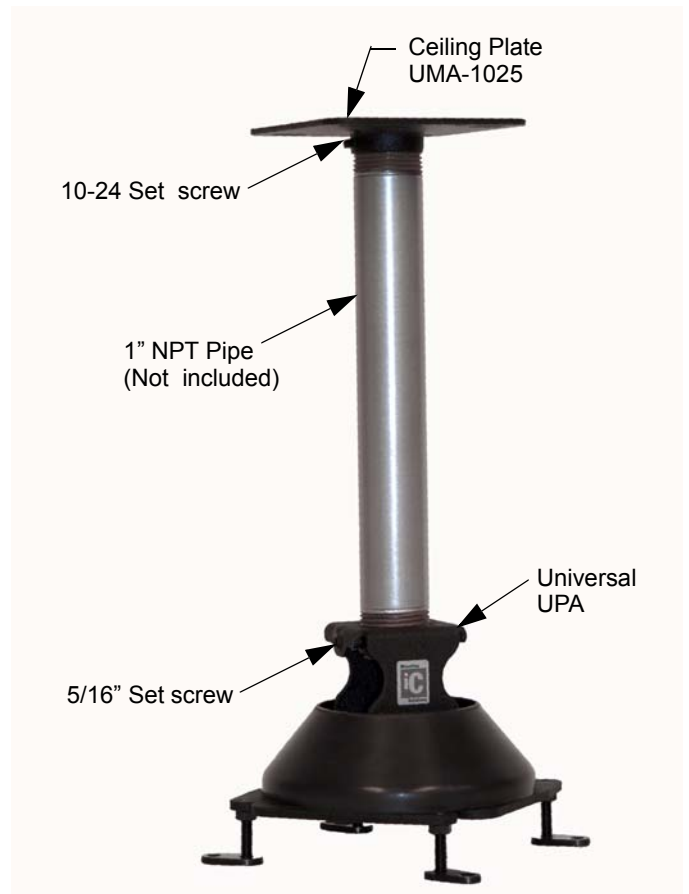


Figure 7. Attach 1" NPT Pipe to Ceiling Plate and Universal UPA (Example)

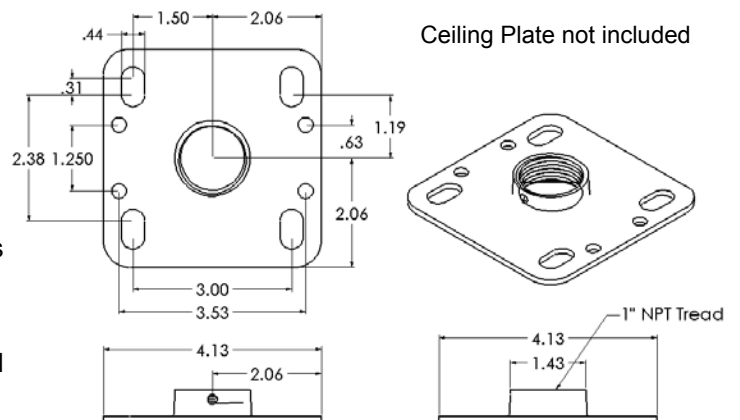


Figure 8. Ceiling Plate Hole Pattern (for 1" NPT Pipe Column)

## ATTACH UNIVERSAL UPA TO MOUNT

Attach the Universal UPA (with projector attached) to the ceiling mount by lifting and rotating the bracket screws into the slot and four vee slots of the mount. Secure the bracket using provided thumb screws and route cabling as necessary. Install the UPA on the mount as follows:

**NOTE:** When installing or removing the projector, loosen but do not remove the thumb nuts from the studs.

1. Install (loosely) the 10-24 thumb nuts on the 10-24 studs of the mount (UPA). See Figure 8.
2. Align the four locating slots of the mount with the 10-24 studs of the bracket and rotate the bracket on the mount 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 mount using the thumb nuts (tapered side down).
4. Route cables as necessary.

**NOTE:** Except for installing the Security Parts Kit and completing the alignment procedures, the installation process has been completed.

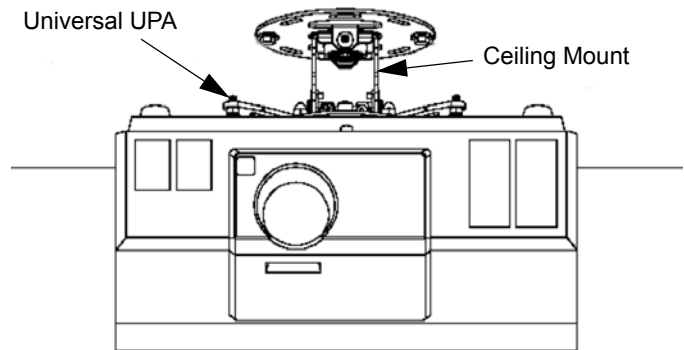


Figure 8. Attach UPA to Mount

## INSTALL SECURITY PARTS KIT

1. Lay out components to ensure you have all the required parts before proceeding (See "SECURITY PARTS KIT" on page 5.).
2. Using security wrench (provided), replace screws with the security screws provided in the security kit (see Figure 9).

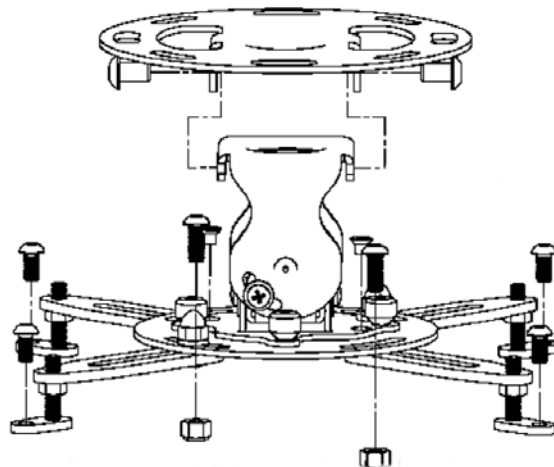


Figure 9. Install Security Parts Kit

## PROJECTOR ALIGNMENT

The projector mount 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 mount 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 10-24 x 3/8" pitch adjustment screws located on each side of the adjustment plate.

1. Loosen the 10-24 x 3/8" pitch adjustment screws located on each side of the adjustment plate (see Figure 11).
2. Adjust projector angle to desired pitch.
3. Tighten the 10-24 x 3/8" pitch adjustment screws located on each side of the adjustment plate.

### Roll

Adjust roll using the 10-24 x 3/8" roll adjustment screws, one on the front and one on the back, of the adjustment plate.

1. Loosen the 10-24 x 3/8" roll adjustment screws on each side of the adjustment plate (see Figure 12).
2. Adjust projector to desired roll position.
3. Tighten the 10-24 x 3/8" roll adjustment screws on each side of the adjustment plate.

### Yaw

For Flush mount:

1. Loosen (slightly) lag bolts (see Figure 13).
2. Adjust projector to the desired yaw position.
3. Tighten lag bolts.

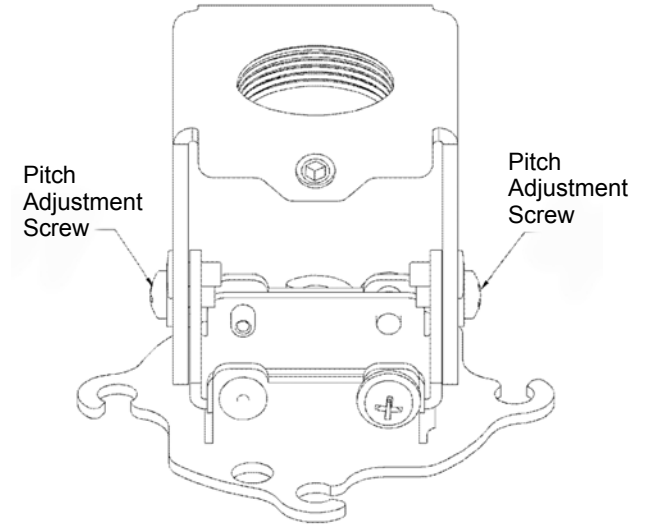


Figure 11. Pitch Adjustment Screws

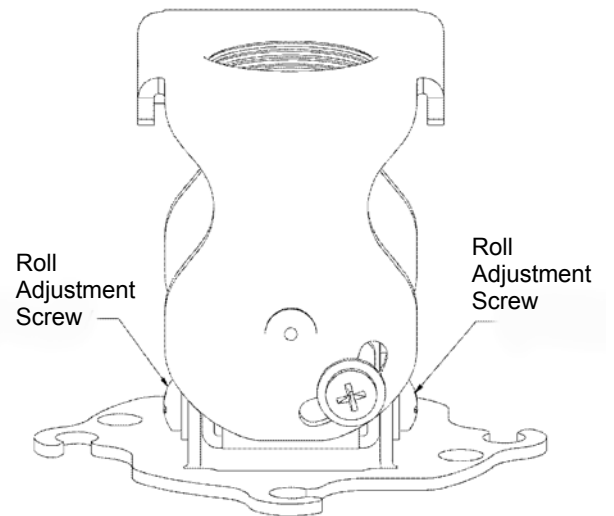


Figure 12. Roll Adjustment Screws

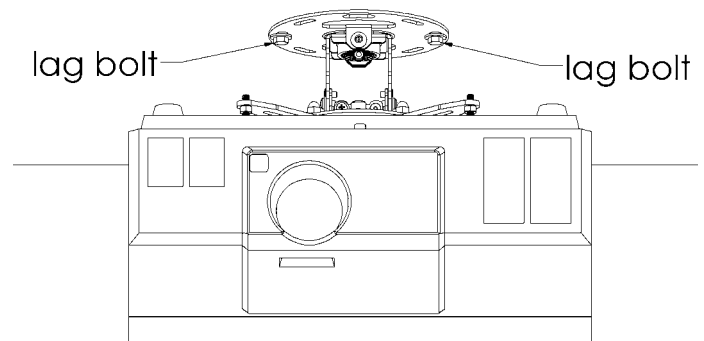


Figure 13. (Flush Mount) Yaw Adjustment Screws

## INSTALL DESIGNER COVER

Install the designer cover as follows:

1. Flex designer cover apart at the seam just enough to fit over the mount.
2. Install designer cover (see Figure 14).
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 inside to secure the seam.

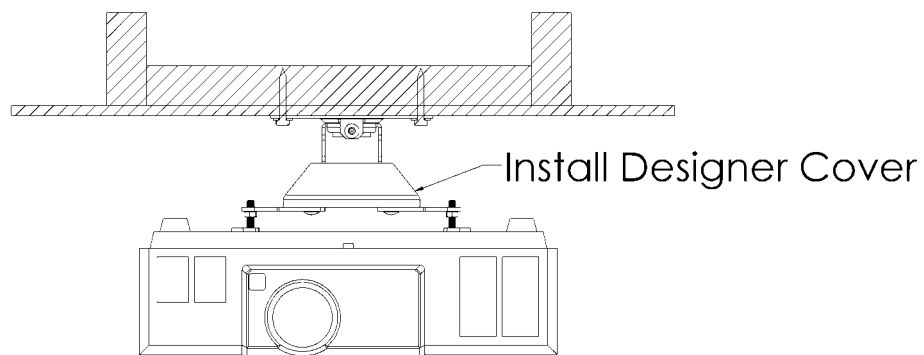


Figure 14. Cover Installation





**iC Mounting Solutions • 8401 Eagle Creek Parkway, Suite 700 • Savage, Minnesota 55378 USA  
US 800.572.1373 • International 952.277.3901 • [www.iCmounts.com](http://www.iCmounts.com)**

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