## INSTALLATION INSTRUCTIONS

## Touchboards

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## Vertical / Horizontal Universal Projector Mount

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## DEFINITIONS

MOUNTING SYSTEM: A MOUNTING SYSTEM is the primary Chief product to which an accessory and/or component is attached.

ACCESSORY: AN ACCESSORY is the secondary Chief product which is attached to a primary Chief product, and may have a component attached or setting on it.

COMPONENT: A COMPONENT is an audiovisual item designed to be attached or resting on an accessory or mounting system such as a video camera, CPU, screen, display, projector, etc.

## A

WARNING: A WARNING alerts you to the possibility of serious injury or death if you do not follow the instructions.

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CAUTION: A CAUTION alerts you to the possibility of damage or destruction of equipment if you do not follow the corresponding instructions.

IMPORTANT SAFETY INSTRUCTIONS

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WARNING: Failure to read, thoroughly understand, and follow all instructions can result in serious personal injury, damage to equipment, or voiding of factory warranty! It is the installer's responsibility to make sure all mounting systems are properly assembled and installed using the instructions provided.

WARNING: Failure to provide adequate structural strength for this mounting system can result in serious personal injury or damage to equipment! It is the installer's responsibility to make sure the structure to which this mounting system is attached can support five times the combined weight of all equipment. Reinforce the structure as required before installing the mounting system.

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WARNING: Exceeding the weight capacity can result in serious personal injury or damage to equipment! It is the installer's responsibility to make sure the combined weight of all components attached to mounting system does not exceed $75 \mathrm{lbs}(34.0 \mathrm{~kg})$.

- The weight capacity of the VPAU may be LIMITED to the lowest weight capacity of any other accessory used within the mounting system.


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WARNING: Use this mounting system only for its intended use as described in these instructions. Do not use attachments not recommended by the manufacturer.

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WARNING: Never operate this mounting system if it is damaged. Return the mounting system to a service center for examination and repair.

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WARNING: Do not use this mounting system outdoors.

IMPORTANT ! : The VPAU mounts are designed to be mounted to a 1-1/2" NPT or NPSM following ANSI/ASME B1.20.1 (Schedule 40, 0.154 " minimum thickness steel or aluminum - ASTM B221) threaded extension column (not included).

## DIMENSIONS



LEGEND


## TOOLS REQUIRED FOR INSTALLATION



## PARTS



NOTE: The M2.5, M3 and M4 Phillips screws are used with the M4 flat washers (V).
NOTE: The M5 and M6 Phillips screws are used with the M6 flat washers (R).

## PREPARATION

## Locate Mounting Site

WARNING: IMPROPER INSTALLATION MAY LEAD TO PROJECTOR MOUNT FALLING CAUSING SEVERE PERSONAL INJURY OR DAMAGE TO EQUIPMENT! It is the installers responsibility to make certain the structure to which the projector mount is being mounted is capable of supporting five times the weight of the projector mount and all attached equipment. Reinforce the structure as required before installing the projector mount.

1. Determine required position of the VPAU projector mount.
2. Determine required distance of the VPAU from the screen using the lens-to-screen distance information included with the projector.

## INSTALLATION

## Installing to 1-1/2" Threaded Extension Column

1. Install 1-1/2" NPT or NPSM following ANSI/ASME B1.20.1 (Schedule 40, 0.154" minimum thickness steel or aluminum - ASTM B221) threaded extension column (not included) into threaded collar (not included) until tight, with a minimum of four threads engaged.
2. Thread VPAU projector mount $(A)$ onto the threaded extension column (not included) until hand tight, with a minimum of four threads engaged.
3. Secure VPAU to pipe by installing and tightening one or two 5/16-18 $\times 1 / 4$ " set screws (D) until tight. (See Figure 1)

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CAUTION: DO NOT OVERTIGHTEN! Over tightening of set screw can damage threads on pipe.


Figure 1

## Attaching Interface to Projector

1. Determine the distance between the mounting holes on the projector. (See Figure 2)
NOTE: There is not a standard mounting hole configuration pattern for projectors. The interface legs can be configured to match the mounting holes on the projector.


Figure 2
2. Loosen, but do NOT remove, the screws holding the legs to the interface bracket (B). (See Figure )


Figure 3

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NOTE: Remove one Phillips screw, hex nut and leg if the projector only has three mounting holes. (See Figure 4)
NOTE: Add additional bracket leg(s) (F) (using one 1/4-20 $\times 1 / 2^{\prime \prime}$ Phillips head cap screw (G) and one square nut (H) per bracket leg) if projector has more than four mounting holes. (See Figure 4)
NOTE: The interface legs may be adjusted into numerous configurations. The interface legs may be extended out or brought into the center of the interface.
NOTE: If it is not possible to align the adjustable legs with the mounting hole pattern on the projector, a leg or legs may be moved and/or removed so that the interface bracket may be aligned using a horizontal slot. (See Figure 4)
IMPORTANT ! : At a minimum, three interface bracket legs MUST be attached to the projector.


Figure 4
3. Place the interface bracket on the projector.
4. Adjust legs on interface as needed to align the legs with projector mounting holes.
5. Secure interface bracket $(B)$ to the projector by selecting the screws (K-U) and flat washers (R or $V$ ) that fit the mounting holes in the projector.

NOTE: The M2.5, M3 and M4 Phillips screws are used with the M4 flat washers (V). The M5 and M6 Phillips screws are used with the M6 flat washers (R).
6. Attach the universal interface to the projector either through the bracket feet, or directly through the legs. (See Figure 5)


Figure 5
7. Do NOT tighten screws at this time.

## Adjusting Interface Bracket Feet

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WARNING: IMPROPER INSTALLATION CAN LEAD TO PROJECTOR FALLING CAUSING SERIOUS PERSONAL INJURY OR DAMAGE TO EQUIPMENT! DO NOT substitute hardware. Use only hardware provided by the manufacturer and make certain all hardware is properly tightened.

1. Adjust the feet on the interface to the proper height.

NOTE: Foot height is adjusted for a variety of reasons including: ventilation, uneven projector surface, or to level the interface bracket mounting plate.
2. Visually check the height of the mounting plate on the interface.
3. Loosen screw and adjust foot that is attached to adjustable leg. The foot may be removed and reattached to allow more adjustment, if necessary. (See Figure 6)
4. Adjust foot height as needed. If necessary, use a level to verify that the interface mounting plate is level.
5. Tighten screw.
6. Repeat procedure for each foot as needed until the feet on the interface are adjusted properly.


Figure 6

## Install Projector

WARNING: IMPROPER INSTALLATION CAN LEAD TO PROJECTOR FALLING RESULTING IN SERIOUS PERSONAL INJURY OR DAMAGE TO EQUIPMENT. DO NOT substitute hardware. Use only the hardware provided by the manufacturer.

1. Install four thumb nuts (J) onto screw at each corner of interface bracket (B). Do not tighten completely. (See Figure 7)


Figure 7
2. Orient projector with attached interface bracket (B) with VPAU (A). (See Figure 8)
3. Lift projector so that screws with thumb nuts (J) are aligned with mounting slots in projector mount.
4. Slide projector with interface bracket into mounting slots in VPAU until screws are seated against the back of mounting slots.

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WARNING: IMPROPER INSTALLATION CAN LEAD TO PROJECTOR FALLING RESULTING IN SERIOUS PERSONAL INJURY OR DAMAGE TO EQUIPMENT. Make certain mounting slots in VPAU slide under thumb screws and that screws are seated in the back of slots.


Figure 8
5. Add two slide protection brackets (C), to the two VPAU sides which have shorter tabs. (See Figure 9)


Figure 9
6. Secure projector to mount (See Figure 9) by completely tightening four thumb nuts.

## WARNING: IMPROPER INSTALLATION CAN LEAD TO

 PROJECTOR FALLING RESULTING IN SERIOUS PERSONAL INJURY OR DAMAGE TO EQUIPMENT. Slide protection brackets (C) MUST be in place before making adjustments to VPAU and projector.NOTE: It is normal for the slide protection brackets (C) to be slightly loose to the touch when installed properly.

## ADJUSTMENTS

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CAUTION: Be sure to check instructions included with projector to see if that projector model can be rotated and adjusted from vertical to horizontal without causing damage to the projector.

## YAW Adjustment

1. Loosen two yaw adjustment set screws. (See Figure 10)

NOTE: Yaw is only adjustable when attached to a threaded pipe.
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WARNING: Do not turn the projector to the end of the pipe threads. The projector, interface bracket and VPAU will fall from the pipe if it is unthreaded too far! A minimum of four threads MUST be engaged in order to ensure a secure connection!
2. Adjust projector by turning the projector on the column to the desired yaw position.
3. Tighten two yaw adjustment locking screws. (See Figure 10)


Figure 10

## Pitch/Roll Adjustment

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CAUTION: Be sure to check instructions included with projector to see if that projector model can be rotated and adjusted from vertical to horizontal without causing damage to the projector.
4. Loosen pitch/roll adjustment button head screws (two on each end of the VPAU projector mount).
5. Adjust projector angle to desired pitch. (See Figure 11)
6. Tighten pitch/roll adjustment button head screws (two on each end of the VPAU projector mount).


Figure 11

## Rotation Adjustment

7. Slightly loosen the button head screw on base of VPAU.
8. Rotate the projector on the VPAU as required. There is $180+{ }^{\circ}$ rotation adjustment possible.

If additional rotation is required:
9. Add one $5 / 16-18 \times 1$ " button head cap screw (W) along with one $5 / 16$ " washer ( X ) into one of the two separate holes in the VPAU base. (See Figure 12)
10. Remove the existing button head cap screw and washer from VPAU base.
11. Adjust rotation as required.
12. Tlghten button head cap screw after rotation is complete.


Figure 12

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