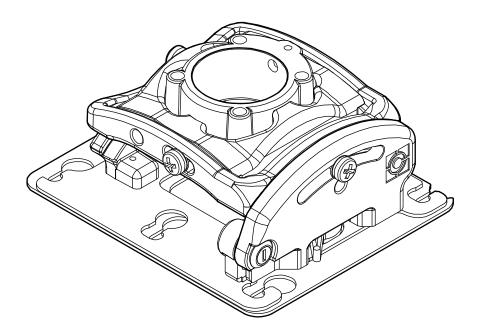
# INSTALLATION INSTRUCTIONS



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# **RPA Elite Series Projector Mounts**



#### NOTE: RPMA, RPMB, and RPMC models are included in these installation instructions. Throughout these instructions "RPMX" is used to designate all of the models covered by these instructions.

## DISCLAIMER

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# IMPORTANT SAFETY INSTRUCTIONS

**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:** 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 components are properly assembled and installed using the instructions provided.

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

**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 the RPMX does not exceed 50 lbs (22.7 kg).

 The weight capacity of the RPMX may be LIMITED to the lowest weight capacity of any other components located between the RPMX and the supporting structure!

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

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

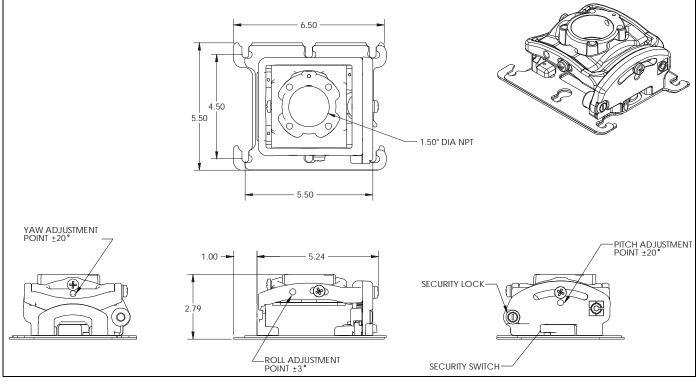
**WARNING:** Do not use this product outdoors.

**IMPORTANT !:** The RPMX mounts are designed to be:

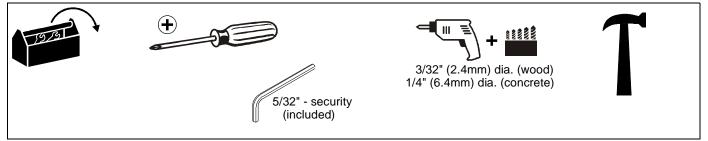
- mounted to a 1-1/2" NPT or NPSM following ANSI/ ASME B1.20.1 (Schedule 40, 0.154" minimum thickness aluminum - ASTM B221) threaded extension column;
- mounted to double 2" x 4" wood stud cross bracing (1-1/2" on center) between two 2" x 4" ceiling joists with a maximum drywall covering of 5/8";
- mounted to a concrete ceiling with a minimum thickness of 8" and a maximum drywall covering of 5/8"; or
- suspended from four #10-24 grade ASTM A307 or better threaded rods (not included) which are secured to Unistrut®, angle or channel assembly overhead structural members (trusses or I-beams) by #10-24 grade ASTM A307 or better jam nuts (not included).
- NOTE: RPMA / RPMB / RPMC Series may be used with Listed Chief models WM110S, WM120S, WM130S, WM210S, WM220S, WM230S, WM240S, WM210SI, WM220SI, WM230SI, WM240SI, SL220 and LSB101 (not included).

# --SAVE THESE INSTRUCTIONS--

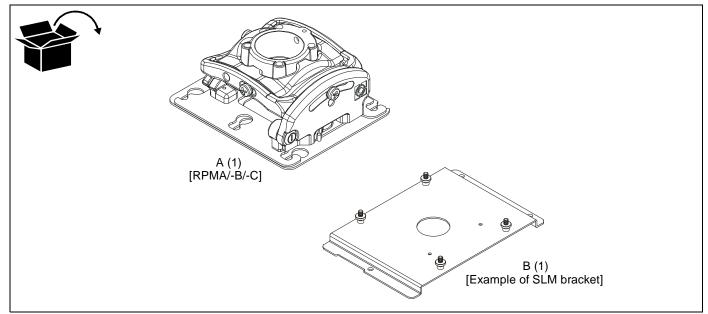
# DIMENSIONS



# TOOLS REQUIRED FOR INSTALLATION







# LEGEND

EGEND		
	Tighten Fastener	Pencil Mark
	Serrez les fixations	Marquage au crayon
	Serrare il fissaggio	Segno a matita
	Befestigungsteil festziehen	Stiftmarkierung
	Apretar elemento de fijación	Marcar con lápiz
	Bevestiging vastdraaien	Potloodmerkteken
	Apertar fixador	Marcar com lápis
	Loosen Fastener	Drill Hole
	Desserrez les fixations	Percez un trou
	Allentare il fissaggio	Praticare un foro
₩	Befestigungsteil lösen	Bohrloch
	Aflojar elemento de fijación	Perforar
	Bevestiging losdraaien	Gat boren
	Desapertar fixador	Fazer furo
	Phillips Screwdriver	Adjust
	Tournevis à pointe cruciforme	Ajuster
	Cacciavite a stella	Regolare
	Kreuzschlitzschraubendreher	Einstellen
V V	Destornillador Phillips	Ajustar
1	Kruiskopschroevendraaier	Afstellen
	Chave de fendas Phillips	Ajustar
		Hammer
	Hex-Head Wrench Clé à tête hexagonale	Martillo
J)	Chiave esagonale	Hammer
	Sechskantschlüssel	Martelo
	Llave de cabeza hexagonal	Martello
	Zeskantsleutel	Hamer
		Marteau
	Chave de cabeça sextavada	
	Open-Ended Wrench	Target of Projector
	Clé à fourche	Punto de enfoque del proyector
6/	Chiave a punte aperte	Ziel des Projektors
P	Gabelschlüssel	Mira do projector
	Llave de boca	Punto di proiezione
	Steeksleutel	Doel van de projector
	Chave de bocas	Cible du projecteur
	By Hand	Security Wrench
	À la main	Clé de sécurité
Es l	A mano	Chiave di sicurezza
	Von Hand	Sicherheitsschlüssel
	A mano	Llave de seguridad
	Met de hand	Veiligheidssleutel
	Com a mão	Chave de segurança

# 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 RPMX projector mount.
- 2. Determine required distance of the projector mount from the screen using the projector specifications.
- NOTE: Proceed to Installing to 1-1/2" Threaded Extension Column, Installing to Wood Framework, Installing to Concrete Ceiling, or Installing to Threaded Rod section, as appropriate.

# INSTALLATION

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

- 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 until tight, with a minimum of four threads engaged.
- 2. Thread RPMX projector mount (A) onto the threaded extension column (not included) until hand tight.
- 3. Turn RPMX clockwise or counter-clockwise until front of mount is facing target.

**IMPORTANT ! :** When RPMX is properly positioned, the set screw access hole should be pointing directly at target, or 180° AWAY from target.

4. Secure RPMX to pipe by turning set screw with a 5/32" hex key until tight. (See Figure 1)

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

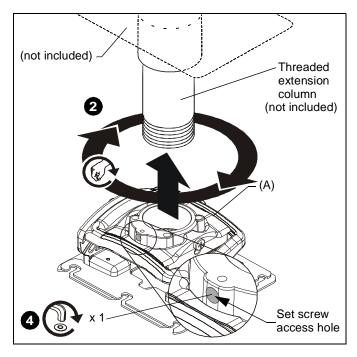
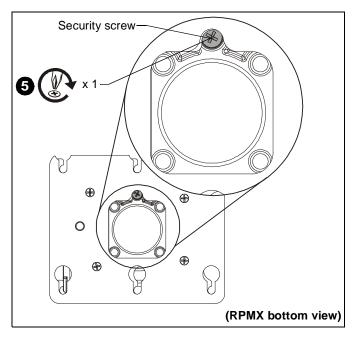


Figure 1

 Turn security screw (access from bottom of RPMX) (See Figure 2) using a Phillips screwdriver until set screw cannot be seen through set screw access hole in RPMX. (See Figure 1)

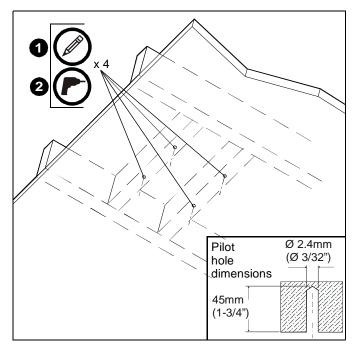


#### Figure 2

6. Proceed to **Installing Projector with Interface Bracket** section.

## Installing to Wood Framework (Joists)

- 1. Using the RPMX as a guide, mark four mounting hole locations. (See Figure 3)
- Drill four 3/32" (2.4mm) dia. pilot holes to a depth of 1-3/4" (45mm) deep.





3. Align four mounting holes in RPMX with four pilot holes.

**IMPORTANT ! :** When RPMX is properly positioned, the set screw access hole should be pointing directly at target, or 180° AWAY from target.

 Secure RPMX to structure using four #10-24 x 3" Grade 2 wood screws (not included) and four 1/4" Grade 2 flat washers (not included). (See Figure 4)

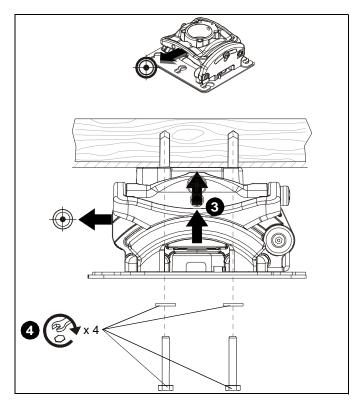


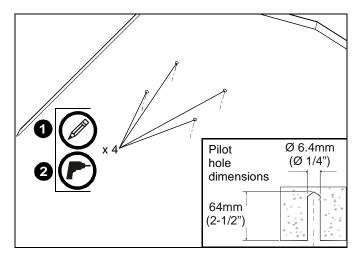
Figure 4

5. Proceed to **Installing Projector with Interface Bracket** section.

#### Installing to Concrete Ceiling

**WARNING:** The RPMX is designed to be mounted to a concrete ceiling with a minimum thickness of 8" and a maximum drywall covering of 5/8".

- 1. Using the RPMX as a guide, mark four mounting hole locations on ceiling using a pencil or similar tool.
- Drill four 1/4" (6.4mm) dia. pilot holes to a depth of 2-1/2" (64mm) deep. (See Figure 5)



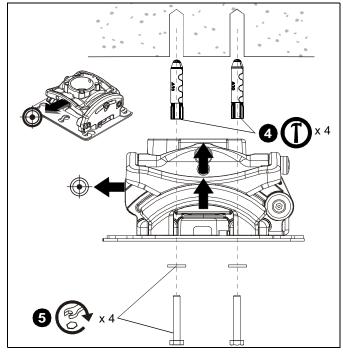


3. Align four mounting holes in RPMX with four pilot holes.

**IMPORTANT ! :** When RPMX is properly positioned, the set screw access hole should be pointing directly at target, or 180° AWAY from target.

**WARNING:** Anchors (not provided) must be installed into structurally sound solid concrete. Installation into hollow concrete block, mortar, or concrete that exhibits cracking, spalling, or other defects may result in failure of anchor and serious personal injury or damage to equipment.

- 4. Install four Toggler AF6 Alligator concrete anchors (not included) by inserting into pilot holes and hammering in until flush with mounting surface.
- Secure RPMX to structure using four 1/4" Grade 2 flat washers and four #10-24" x 3" Grade 2 wood screws (not included). (See Figure 6)

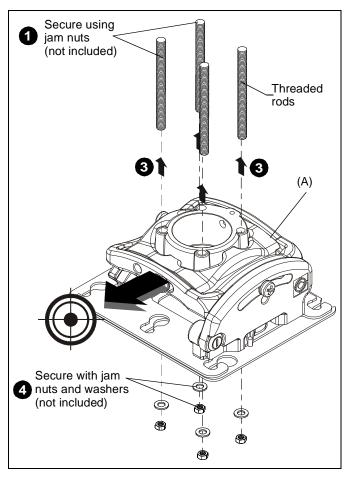


#### Figure 6

#### Installing to Threaded Rod

- **NOTE:** The RPMX projector mount may be suspended from four #10-24 grade ASTM A307 or better threaded rods (not included) which are secured to unistrut, angle or channel assembly overhead structural members (trusses or I-beams) by #10-24 grade ASTM A307 or better jam nuts (not included).
- 1. Secure one end of each of the four threaded rods (not included) to the structural member.
- 2. Install four #10-24 jam nuts (not included) onto each threaded rod.
- 3. Install RPMX onto threaded rods, inserting the rods into the four holes on top of the RPMX.
- **NOTE:** Hole in the RPMX allows socket wrench access without unit disassembly.

 Secure the threaded rods to the RPMX with #10-24 jam nuts (not included) and 1/4" washers (not included). (See Figure 7)



#### Figure 7

5. Proceed to **Installing Projector with Interface Bracket** section.

# **PROJECTOR INSTALLATION**

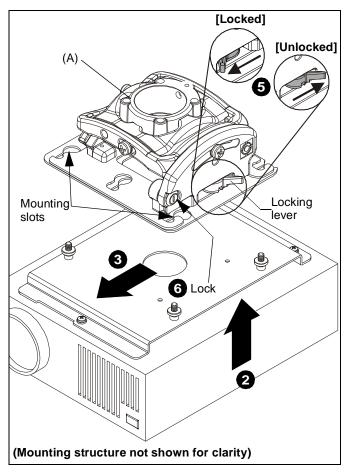
**IMPORTANT ! :** Model RPMX uses optional Chief "SLM" Series interface brackets. See **Parts** drawing.

- 1. Attach projector to interface bracket (B) using installation instructions and hardware included with the interface bracket.
- **NOTE:** Security screws can be substituted when mounting Interface bracket to projector by using the hardware and installation instructions in the All-Points Security Kit (included with interface bracket).

#### Installing Projector with Interface Bracket

- 1. Orient projector with interface bracket.
- 2. Lift projector so that screws with thumb nuts are aligned with mounting slots in mount base. (See Figure 8)
- Slide projector with mounting bracket into mounting slots in mount base until screws are seated against the back of mounting slots.

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



### Figure 8

- 4. Verify mounting screws are properly seated in mounting slots in mount base.
- 5. Move locking lever to "LOCKED" position. (See Figure 8)
- 6. Insert key into lock and turn to secure projector to RPMX.
- 7. Route all cables, as required.

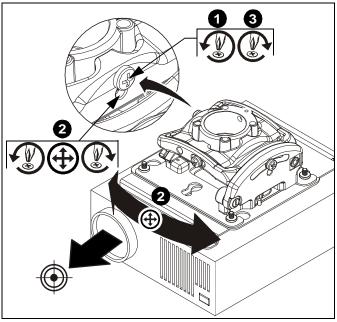
# ADJUSTMENTS

The RPMX projector mount can be adjusted for pitch (vertical elevation), roll (horizontal tilt), and yaw (rotation).

WARNING: OVER-LOOSENING OR REMOVAL OF HARDWARE MAY RESULT IN PERSONAL INJURY OR SERIOUS DAMAGE TO EQUIPMENT! RPMX projector mount and hardware is to be loosened only enough to allow for necessary movement.

## YAW Adjustment (Rotation)

- 1. Loosen YAW adjustment locking screw using a #2 Phillips screwdriver. (See Figure 9)
- 2. Turn YAW micro-adjustment screw right or left using a #2 Phillips screwdriver until image is properly aligned on target.
- 3. Tighten YAW adjustment locking screw using a #2 Phillips screwdriver.



#### Figure 9

# **Pitch Adjustment (Vertical Elevation)**

- 1. Loosen PITCH adjustment locking screw using a #2 Phillips screwdriver. (See Figure 10)
- 2. Turn PITCH micro-adjustment screw right or left using a #2 Phillips screwdriver until image is properly aligned on target.
- 3. Tighten PITCH adjustment locking screw using a #2 Phillips screwdriver.

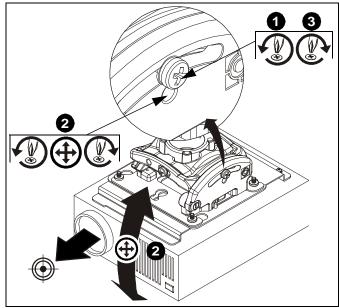


Figure 10

# **Roll Adjustment (Horizontal Tilt)**

- 1. Loosen ROLL adjustment locking screw using a #2 Phillips screwdriver. (See Figure 11)
- 2. Turn ROLL micro-adjustment screw right or left using a #2 Phillips screwdriver until image is properly aligned on target.
- 3. Tighten ROLL adjustment locking screw using a #2 Phillips screwdriver.

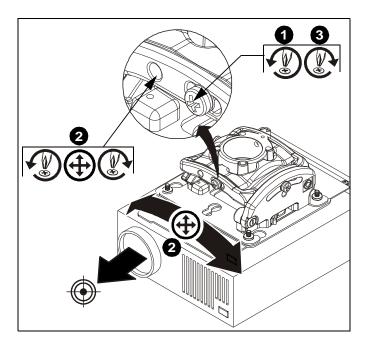


Figure 11

# milestone AV Technologies

# MANUFACTURERS DECLARATION OF CONFORMITY

For

<b>Product identification:</b> Model/type Category (description)	: RPMA/RPMB/RPMC : Mounting devices, Stands and other Accessories, to be used with entertainment
Brand	electronics : Chief
Manufacturer:	Milestone AV Technologies 6436 City West Parkway Eden Prairie, MN 55344
EU Representative:	Milestone AV Technologies Fellennoord 130 5611 ZB Einhoven The Netherlands 31 (0)20 5708923

Concerning				
	EMC	Safety		
A sample of the	TUV 0123	Milestone Inc.		
product				
has been tested by:				
Test report reference	NC707785			
	WC700711, WC603563	5.	3	
Applied standards	EN50022B, EN55014-1,	EN60065/A12:2011		
	EN61000-4			

#### Means of conformity

We declare under our sole responsibility that this product is in conformity with Directive 93/68/EEC (Marking), 98/37/EC (Machinery) 2001/95/EC (Safety) 89/336/EEC (EMC) and/or complies to the essential requirements and all other relevant provisions of the based on test results using (non)harmonized standards in accordance with the Directives mentioned



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