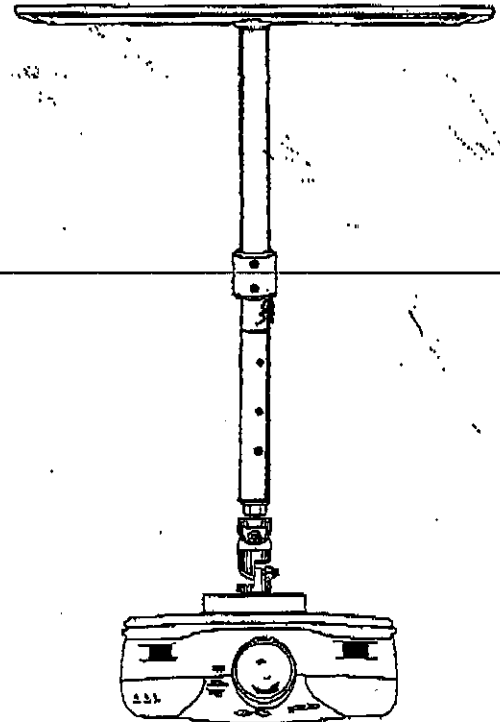
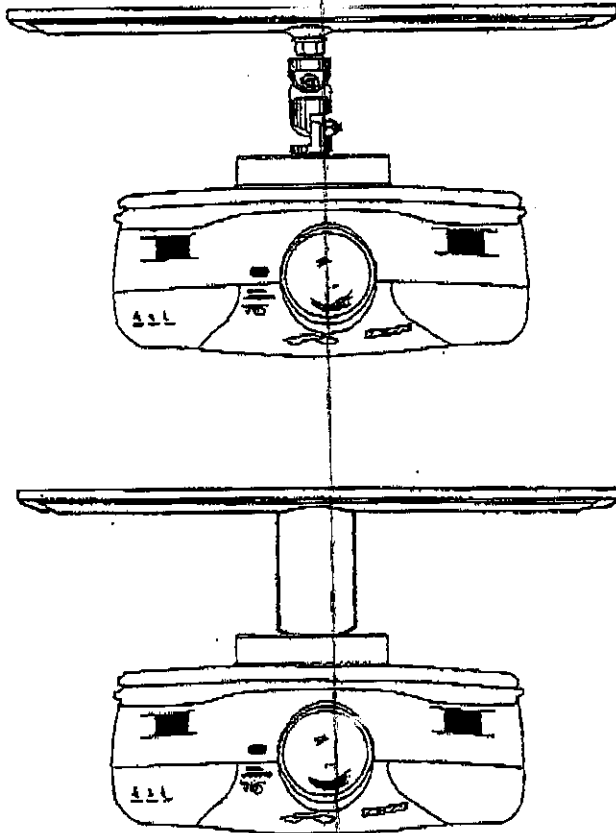


SHARP®

AN-CM250

**INSTALLATION INSTRUCTIONS FOR
MOUNTING BRACKET FOR USE
ONLY WITH SHARP PROJECTOR
MODEL XV-Z9000U**

**CEILING MOUNTING
BRACKET AN-CM250**



**CEILING MOUNTING
BRACKET COMBINED
WITH OPTIONAL
ADJUSTABLE
EXTENSION TUBE
MODEL AN-EP101B**



INSTALLATION INSTRUCTIONS

CEILING BRACKET AN-CM250



C A U T I O N

INSTALLATION OF THIS ADJUSTABLE WALL MOUNTING BRACKET SHOULD BE PERFORMED BY QUALIFIED SERVICE/INSTALLATION PERSONNEL FOLLOWING THE INSTALLATION INSTRUCTIONS INCLUDED WITH THIS BRACKET



THE EXCLAMATION POINT WITHIN AN EQUILATERAL TRIANGLE IS INTENDED TO ALERT THE USER TO THE PRESENCE OF IMPORTANT OPERATING AND MAINTENANCE (SERVICING) INSTRUCTIONS IN THE LITERATURE ACCOMPANYING THE APPLIANCE.



IMPORTANT! THE INSTALLER SHOULD READ THESE INSTRUCTIONS THOROUGHLY BEFORE BEGINNING THE INSTALLATION AND SHOULD MAKE SURE THAT ALL THE WORK IS DONE IN COMPLIANCE WITH NEC AND ALL LOCAL BUILDING AND SAFETY CODES. SAVE THIS BOOKLET AFTER THE INSTALLATION IS COMPLETED. THE ACCESSORIES REFERRED TO IN THESE INSTRUCTIONS ARE INTENDED FOR USE ONLY WITH COMPATIBLE SHARP PROJECTORS. SEE SHARP PROJECTOR OWNER'S MANUAL OR SHARP DEALER TO DETERMINE SUITABILITY.



CAUTION: THE BRACKET MOUNTING SCREWS MUST GO DIRECTLY INTO THE BEAMS. SHEETROCK, LATH AND PLASTER, WILL NOT PROVIDE A SUFFICIENTLY SECURE SUPPORT.



CAUTION: TO REDUCE THE RISK OF PERSONAL INJURY, USE ONLY THE COMPONENTS WHICH ARE INCLUDED IN THIS PACKAGE, OR SPECIFIED IN THESE INSTRUCTIONS.

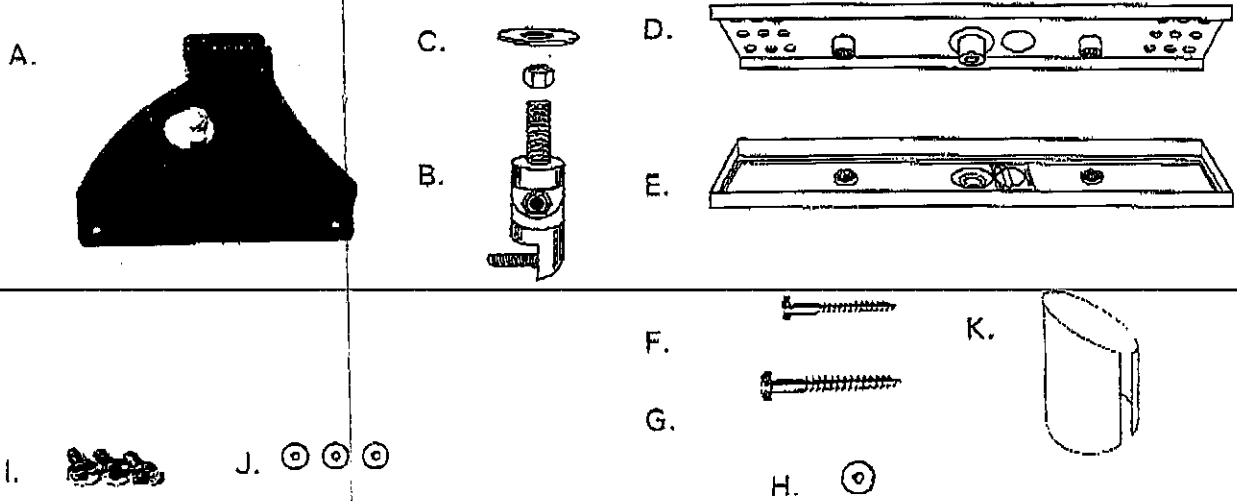
PARTS LIST FOR MODEL AN-CM250 CEILING BRACKET (SEE FIG. 1)

ITEM	DESCRIPTION	QUANTITY
A.	PROJECTOR ATTACHMENT PLATE WHICH INCLUDES THE DUAL KNUCKLE POSITIONING ASSEMBLY.	1
B.	DUAL KNUCKLE POSITIONING ASSEMBLY	1
C.	LOCKING HEX NUT & WASHER	1
D.	STEEL CEILING MOUNTING PLATE	1
E.	PLASTIC TRIM FOR CEILING PLATE	1
F.	1/4 X 10 HEX HEAD LAG BOLTS 2-1/2" LONG	6
G.	1/4 X 10 HEX HEAD LAG BOLTS 3" LONG	6
H.	1/4" I.D. WASHERS FOR USE WITH LAG BOLTS	6
I.	M4 X 8mm MOUNTING SCREWS FOR USE WITH ATTACHMENT PLATE	3
J.	M4 FLAT WASHER FOR USE WITH MOUNTING SCREW ON ATTACHMENT PLATE	3
K.	PLASTIC TRIM COLLAR	1

INSTALLATION INSTRUCTIONS

CEILING BRACKET AN-CM250

FIGURE 1. ILLUSTRATION OF PARTS FOR CEILING BRACKET



INVERT THE PROJECTOR IMAGE

Please refer to the owners manual for your LCD Projector for detailed instructions of how to electrically invert the projected image to accommodate its use in the ceiling mounted mode.

LOCATION OF THE CEILING BRACKET

Please refer to the owner's manual for your SHARP LCD PROJECTOR for information which will help you to determine the best location for the placement of the ceiling mounting bracket assembly.

INSTALLATION OF THE CEILING BRACKET

After you have determined the appropriate location for the ceiling bracket, you must locate the exact location of the ceiling beams. Most standard residential construction uses 16 inches between centers for overhead beams. You can mount the ceiling bracket by straddling two beams, or you can install the bracket in line with a single beam.

CAUTION: THE BRACKET MOUNTING SCREWS MUST GO DIRECTLY INTO THE BEAMS. SHEETROCK, LATH AND PLASTER, WILL NOT PROVIDE A SUFFICIENTLY SECURE SUPPORT.

STEP 1. INSTALLATION OF THE METAL CEILING BRACKET

After the location for the ceiling bracket has been determined, (see LCD PROJECTOR Owner's Manual), make sure to locate beams in the ceiling.

INSTALLATION INSTRUCTIONS

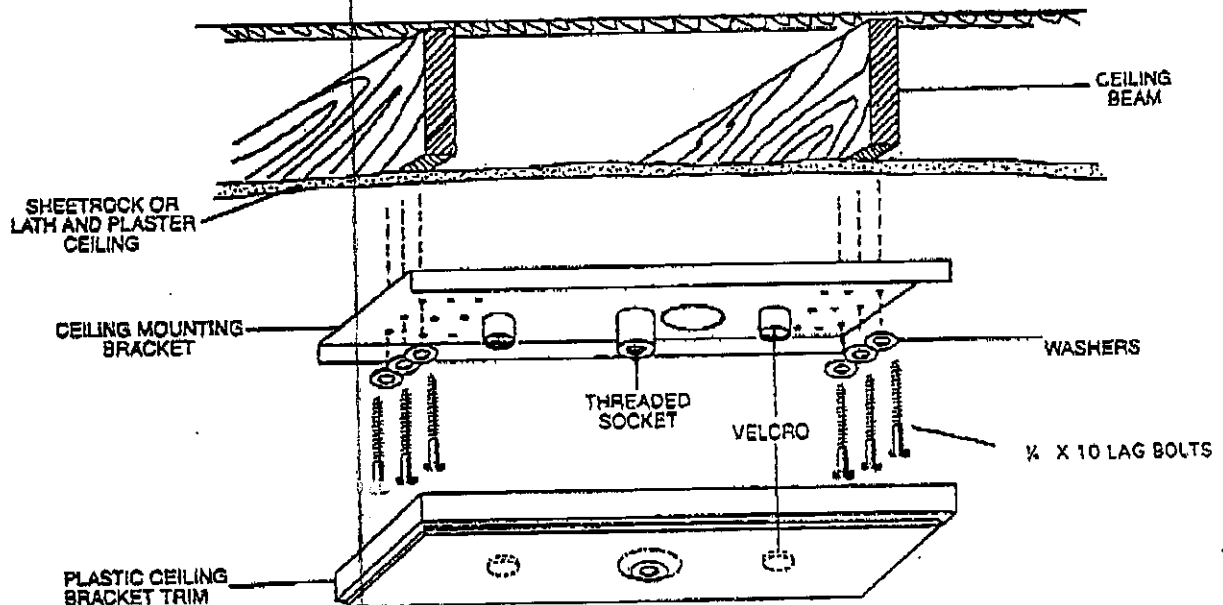
CEILING BRACKET AN-CM250

- 1.1 a. Select straddle beam or single beam installation.
- b. Use the ceiling bracket as a template to mark the location where the pilot holes should be drilled.
- c. Drill pilot holes for the support screws using a 1/8" drill bit into the center of the beam.
(See Figs. 2 and 3)
- 1.2 Screw the ceiling plate to the beams. Use at least 6 screws and metal washers supplied with the unit. These screws should be tightened firmly to insure a vibration-free support. (see Figs. 2 and 3)

Two sizes of hex head lag bolts are provided. Use shorter screws for sheet rock surfaces and use the longer screws if the ceiling surface is constructed of a wood lath and plaster.

CAUTION: THE BRACKET MOUNTING SCREWS MUST GO DIRECTLY INTO THE BEAMS. SHEETROCK OR LATH AND PLASTER WILL NOT PROVIDE A SUFFICIENTLY SECURE SUPPORT.

FIGURE 2. ILLUSTRATION OF STRADDLE BEAM CEILING BRACKET INSTALLATION

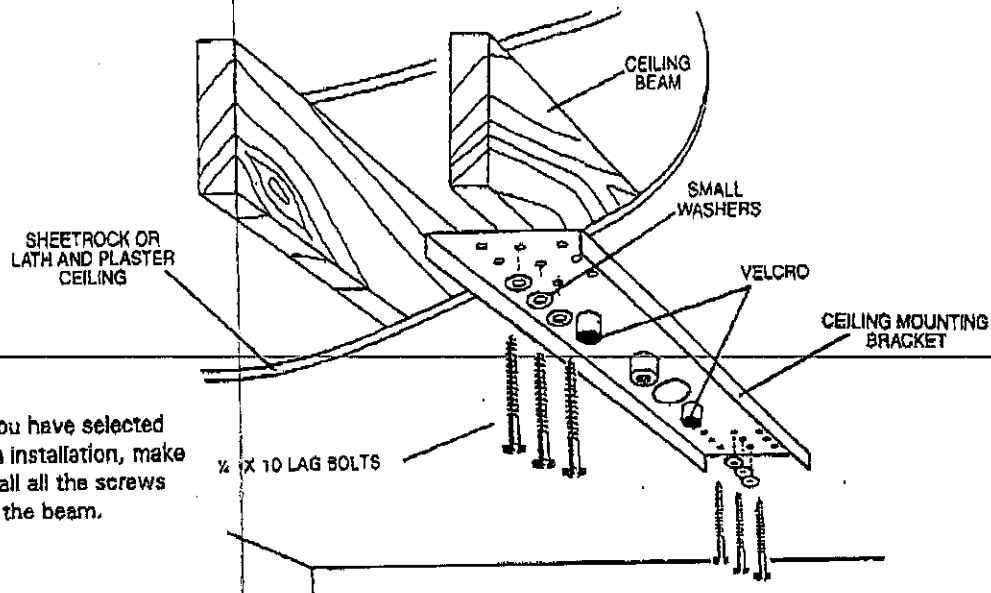


NOTE: THE OUTER ROW OF HOLES ARE 16" BETWEEN CENTERS WHICH IS THE MOST COMMON BEAM SPACING IN RESIDENTIAL WOOD FRAME CONSTRUCTION.

INSTALLATION INSTRUCTIONS

CEILING BRACKET AN-CM250

FIGURE 3 ILLUSTRATION OF SINGLE BEAM CEILING BRACKET INSTALLATION



NOTE: If you have selected single beam installation, make sure to install all the screws in line with the beam.

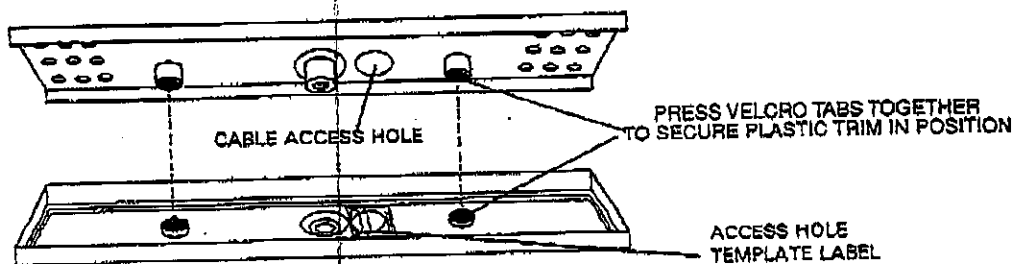


DO NOT RUN THE AC POWER CORD THROUGH THE CEILING PLATE AND TRIM COVER

STEP 2. INSTALL THE CEILING MOUNT PLASTIC TRIM

- 2.1 The Access Hole (See Fig. 4) in the ceiling attachment plate is large enough to accommodate the molded connectors commonly used with the projector.
- 2.2 Audio, Video and other low voltage connections may be passed through the access hole in the ceiling plate and may also be passed through the plastic trim cover. There is a label (See Fig. 4) on the inside of the plastic trim cover, adjacent to the center mounting bushing.
- 2.3 Select the contour appropriate for your application and cut out the opening along the line indicated on the label. Use a very sharp cutting tool.
- 2.4 Thread the cable through the plastic trim cover. Place the plastic trim cover in place over the ceiling plate and press the velcro tabs together.

FIGURE 4 INSTALLATION OF PLASTIC TRIM ON THE CEILING BRACKET



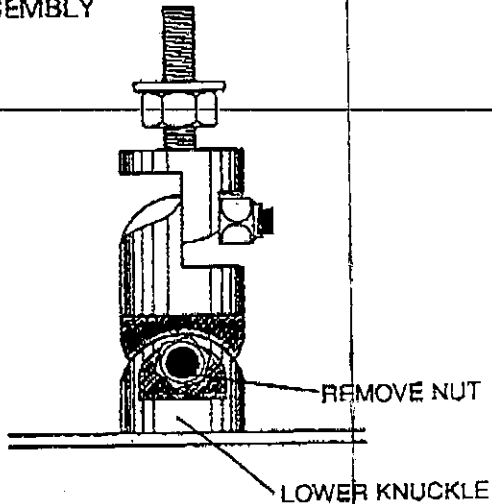
INSTALLATION INSTRUCTIONS

CEILING BRACKET AN-CM250

STEP 3 DETACH THE POSITIONING ASSEMBLY FROM THE PROJECTOR ATTACHMENT PLATE

FIGURE 5

POSITIONING KNUCKLE ASSEMBLY



Note: PLEASE LOOK OVER THE EXACT MANNER IN WHICH THE POSITIONING ASSEMBLY AND THE ATTACHMENT PLATE GO TOGETHER SO THAT YOU WILL BE ABLE TO REASSEMBLE THEM WHEN YOU HANG THE PROJECTOR.

- 3.1 Using 9/16" box wrench, remove the nut from the lower knuckle (vertical position) and slide the center and upper knuckle assembly apart from the bottom knuckle which is part of the attachment plate. (See Fig. 5)

STEP 4 INSTALLATION OF THE PROJECTOR ATTACHMENT PLATE

- 4.1 Place the attachment plate over the bottom of the projector (See Fig. 6) and align the holes of the plate with the threaded fittings on the projector case.
- 4.2 Install the three M4 x 8mm long screws provided, using the M4 washers with each screw. Fasten these securely but DO NOT overtighten. (See Fig. 7)

FIGURE 6.

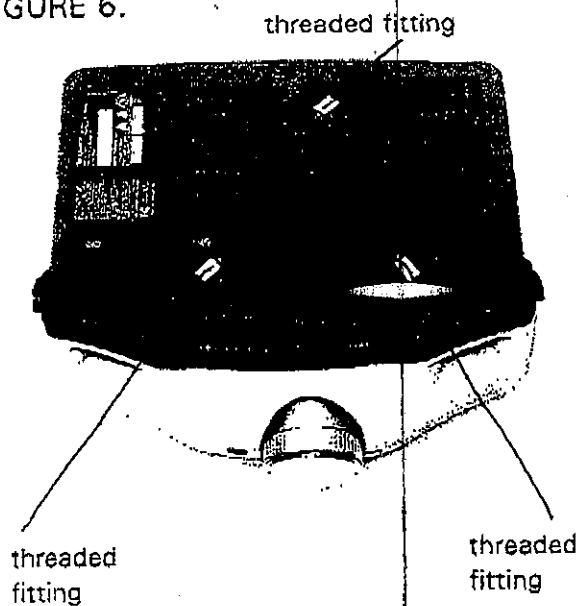
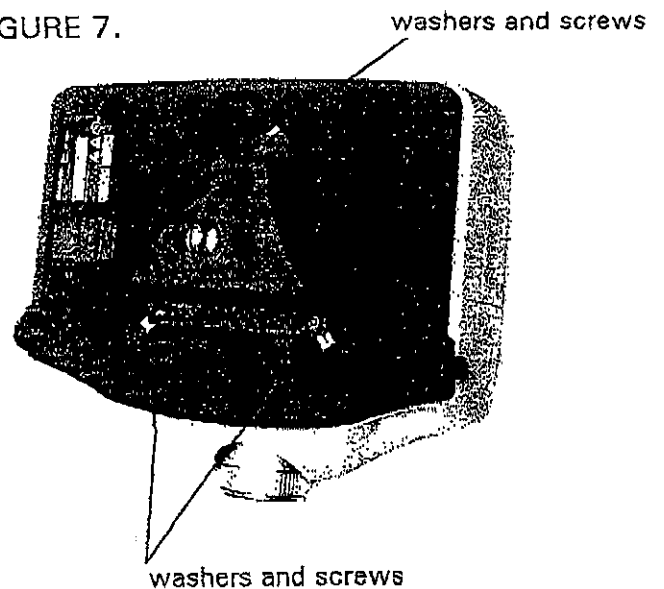


FIGURE 7.

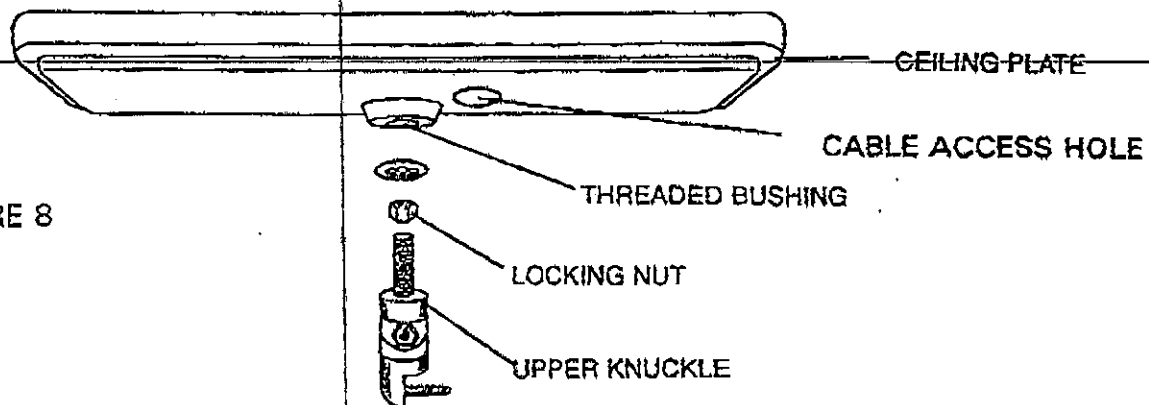


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INSTALLATION INSTRUCTIONS**CEILING BRACKET AN-CM250****STEP 5 ATTACH THE POSITIONING ASSEMBLY TO THE CEILING PLATE**

FIGURE 8



IF YOU INTEND TO RUN AUDIO OR VIDEO CABLES THROUGH THE CEILING PLATE PROCEED WITH STEP 5.1 AND 5.2, OTHERWISE PROCEED TO STEP 5.3:

- 5.1 Cut opening in the ceiling plate trim cover as indicated on the label inside cover near the center bushing.
- 5.2 Thread cables through the plastic trim cover.
- 5.3 Place the plastic trim cover in position over the ceiling plate and press the Velcro tabs together.
- 5.4 After completing step #3, screw the longer shaft with the locking nut and washer into the center threaded bushing on the ceiling plate as far as it will go. (See Fig. 8)
- 5.5 Tighten the locking nut against the ceiling plate using a 3/4" open end wrench or an adjustable crescent wrench.
- 5.6 Tighten the locking nut on the upper knuckle using a 9/16" box wrench.



DO NOT RUN THE AC POWER CORD INSIDE THE PLASTIC TRIM COVER. ALL WIRING MUST COMPLY WITH THE NEC AND ALL LOCAL BUILDING, ELECTRIC, AND SAFETY CODES.

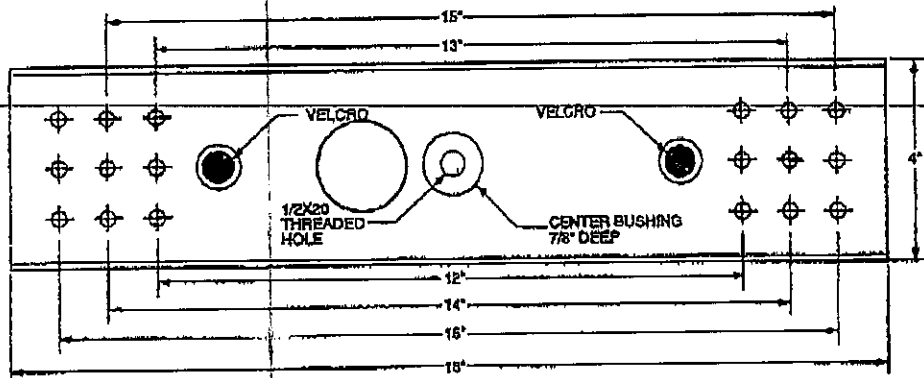
INSTALLATION INSTRUCTIONS**CEILING BRACKET AN-CM250****DIMENSIONS AND MEASUREMENTS OF COMPONENTS FOR
SHARP MOUNTING BRACKET AN-CM-250**

CEILING PLATE WIDE 4" X LONG 18"

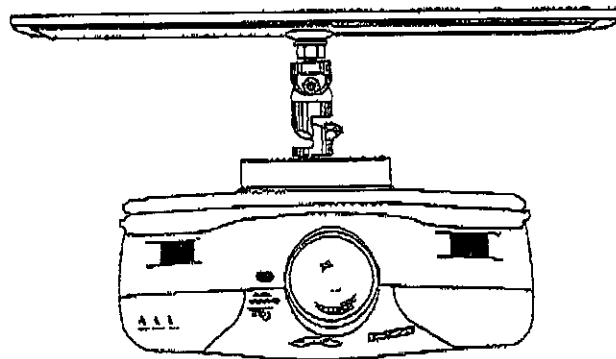
DISTANCE BETWEEN SETS OF MOUNTING HOLES: 1st SET 12", 2nd SET 14", 3rd SET 16"

ADDITIONAL POSSIBLE COMBINATIONS OF MOUNTING HOLE DISTANCE 13" & 15"

THREAD SIZE OF SWIVEL SHAFT & CEILING PLATE BUSHING 1/2" X 20



ATTACHMENT PLATE WITH POSITIONING ASSEMBLY:
SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE



- A. From ceiling to bottom of projector 13 1/16"
- B. Length of position adjustment knuckle assembly 3 5/8"
- C. Lens offset from center of lens to center of mounting busing 1 1/8"
- D. Ceiling to center of lens 10 3/16"
- E. Ceiling to top of projector 6 7/16"
- F. Mounting screws M4 X 8mm long metric.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

INSTALLATION INSTRUCTIONS**CEILING BRACKET AN-CM250****ONE YEAR LIMITED WARRANTY**

Sharp Electronics Corporation warrants to the first end use purchaser, that this Sharp brand product (the "Product"), when shipped in its original container, will be free from defective workmanship and materials, and agrees that it will, at its option, either repair the defect or replace the defective Product or part thereof at no charge to the purchaser for parts or for labor, excluding costs of removal and/or installation, for one year from date of purchase.

This warranty does not apply to any appearance items of the product nor to any Product the exterior of which has been damaged or defaced, which has been subject to misuse, abnormal service or handling, or which has been altered or modified in design or construction.

In order to avail the purchaser of his/her rights under this limited warranty, the purchaser should carry in or ship the Product prepaid and insured, including proof of purchase, to: SHARP ELECTRONICS c/o AVDEX, 115 Henry Street, Freeport, NY 11520.

The limited warranty described above is in addition to whatever implied warranties may be granted to purchasers by law. To the extent permitted by applicable law **ALL IMPLIED WARRANTIES INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR USE ARE LIMITED TO THE PERIOD(S) FROM THE DATE OF PURCHASE SET FORTH ABOVE.** Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

Neither the sales personnel of the seller nor any other person is authorized to make any warranties other than those described above, or to extend the duration of any warranties beyond the time period described above on behalf of Sharp.

The warranties described above shall be the sole and exclusive warranties granted by Sharp and shall be the sole and exclusive remedy available to the purchaser. Correction of defects, in the manner and for the period of time described herein; shall constitute fulfillment of all liabilities and responsibilities of Sharp to the purchaser with respect to the Product, and shall constitute full satisfaction of all claims, whether based on contract, negligence, strict liability or otherwise. In no event shall Sharp be liable, or in any way responsible, for any damages or defects in the Product which were caused by repairs or attempted repairs performed by anyone other than Sharp. Nor shall Sharp be liable or in any way responsible for incidental or consequential economic or property damage. Some states do not allow the exclusion of incidental or consequential damages, so the above exclusion may not apply to you.

THE WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS. YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

Specifications are subject to change without notice.

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