

How tight? To hold the speaker in position and prevent any slippage, the clamp assembly must get a good 'bite' into the ball and form a solid joint. You need not be timid about the tightening procedure. Of course, it is possible to over-tighten and strip the threads on just about any screw—but it will take a lot to do so here. The OmniMount assembly is designed to withstand well in excess of the tightening force necessary for your speaker to hold position; yet the clamp assembly needs to be tightened only enough to lock and hold the speaker firmly at the chosen angle of adjustment. When that point is reached, no further tightening is necessary.

If the speaker loses its position—do not attempt to move the speaker without first loosening the tension screw. Reposition, then re-tighten the tension screw further until the speaker is held firmly in place.

## FINAL STAGES OF TIGHTENING AND POSITIONING . . .

6.1-Check that the final rotational position for the ball shaft is correct. Place the appropriate size wrench on the shoulder nut. With equal pressure push against the ball shaft in the opposite direction as you tighten the nut. This will minimize the stress on both the mounting plate and the ceiling.

NOTE: If you try to move the ball shaft without first loosening it where it joins the mounting plate, lateral forces will transmit to the mounting plate fasteners. The resulting stress, transferred to the mounting surface, could weaken the installation.

6.2-If you need to readjust the lateral position of the ball shaft, always loosen the jam nut first.

Remember: tighter does not mean better! Overtightening fasteners can weaken the installation and dămage your speaker.

Whenever you need to readjust the position of the speaker to move freely around the ball, re-adjust to the new position and then re-tighten. Always remember to support the speaker when repositioning and when tightening the clamp assembly.

6.3-IMPORTANT Since the ball will slowly compress under pressure, you should check the clamp after 15 minutes and tighten again if necessary. Then check once more in approximately one hour. Always support the weight of the speaker while positioning it and tightening the clamp.

Congratulations! Your installation is now complete!

#### Additional Reference...

- U.B.C. (Uniform Building Code) 1994 Edition, Vol. 2, "Structural and Engineering Design Provisions."
- 2. United States Department of Agriculture, Agriculture Handbook #72, "Wood as an Engineering Material," Prepared by: Forest Products Laboratory, Forest Service, USDA
- 3. NDS Commentary on the National Design Specification® for Wood Construction (Commentary on the 1991 Edition), American Forest and Paper Association.

OmniMount products have been installed successfully worldwide for many years. To help ensure the safe and proper use of our products, we believe it is our responsibility to provide clear, detailed instructions with periodically updated precautionary information. Please Note: Évery effort has been made to provide accurate and error-free assembly and installation information. OmniMount® Systems, Inc. disclaims liability for any difficulties arising from the interpretation of information contained in these instructions. OmniMount

Systems, Inc. cannot reasonably assume résponsibility or liability — direct, indirect or consequential — for the structural integrity or suitability of any speakers; nor the suitability for mounting or the structural integrity of the surfaces (walls, ceilings, decks, floors, etc.) to which such speakers are to be mounted. The same holds true for design or manufacturing defects in speakers themselves or design changes made by speaker manufacturers that may affect the safe and secure mounting of their

The General Ceiling Mounting Information and Installation Instructions provided herein are for use in the installation of loudspeakers. Although OmniMount products are often used to support many different kinds of objects, installed on a variety of mounting surfaces, such use and installation may be subject to different specifications requiring installation information in addition to what is provided in this pamphlet. In such cases, be sure to ascertain suitability and obtain the required additional installation information.

## Notice to the Purchaser:

The following is made in lieu of all warranties expressed or implied: the Manufacturer's only obligation shall be to replace parts of this product proved to be defective within two years of the date of purchase. We are aware that this mounting assembly may be used for purposes and in ways other than those for which it has been designed and manufactured. The Manufacturer, Distributor, Retailer, and their respective Agents cannot be held responsible or liable for injuries or property damage—direct, indirect or consequentialarising out of the use or inability to use this product safely and properly.



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Model 30.0STMP Revision 2, 4/02, Part # 607063.

# Model 30.0 STMP



General Mounting Information (For Walls, Ceilings, Decks, Shelves, Floors, etc.) and Installation Instructions



#### Precautions-Read this section carefully

Whenever a speaker is affixed to a wall or ceiling, you must take special care to mount it securely to prevent it from falling and causing damagé or ínjury.

For a safe and secure installation use good judgement and common sense throughout all phases of the installation.

The OmniMount 30.0 STMP— will support speakers weighing up to 30 pounds (11.4 Kg). Be aware of basic physical laws that affect balance, stability and weight distribution. If your speaker is heavier than 30 pounds, we manufacture larger mounts with greater maximum weight ratings.

Mounting Surfaces

Carefully evaluate the composition, construction and strength of the surface you are mounting to. OmniMount 30.0 Series products are packaged with fasteners intended for use in mounting to interior ceilings/walls of standard joist or beam/ stud construction. The installation instructions provided here are limited to this type of ceiling construction.

OmniMount 30.0 Series products can be mounted to steel beams, concrete slabs and other types of ceiling construction. This type of construction does, however, require special anchors and fasteners for a secure and safe installation. There are standard construction practices and fastening products available for mounting to these types of structural surfaces. Seek professional help or contact OmniMount Systems technical support for more information.

The safety and security of your installation is most critically dependent on how securely the OmniMount 30.0 mounting plate is affixed to the

When mounting things to walls or ceilings here are some of the most common installation errors:

Not locating the precise center of the stud or joist---screwing fasteners into an edge rather than the center of the stud or joist. This results in either splitting the wood or only partially engaging the screw shaft. (See Figs. 1 & 2)







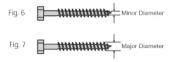
To maximize pull-out strength, the screw shaft needs to be located in the center of the joist. (See Fig. 3)

A pilot hole should serve to simply spilot the travel Pilot Hole

Drilling "pilot' "pull-out" strength.



Screws have a major diameter and a minor diameter. (See Figs. 6 & 7) The pilot hole should always be smaller than the minor diameter of the screw shaft.



Locating the Center of a Joist or

Do not rely on a measuring tape alone.

Standard stud construction practice

centers. Standard jöist construction

centers. But in reality, joists and studs are

not always consistently on these centers.

You find the greatest discrepancy in joist

and stud centers when you measure from the corner of a room, starting with the

It may be helpful to locate several studs

or joists on the wall or ceiling and

méasure their approximate centers.

There are a variety of electronic and

magnetic stud or joist finders available on

the market. They can be useful tools for

finding joists of studs. But it is essential

that you locate the exact center of the joist

or stud. How to do this is detailed in these

About The Speaker You Are Mounting To ...

speakers. Such speakers have inserts that line up

precisely with the hole centers in the OmniMount

Some manufacturers provide "OmniMount

prepped" threaded inserts on the back of their

practice places joists on 16" or 24"

places wall studding on 12" or 16"

Always use screws long enough to penetrate deeply into the joist or beam. (See Figs. 8 & 9)



first joist or stud.

installation instructions.



If you are not sure about the suitability of the fasteners provided for your installation, ASK QUESTIONS!

speaker in place during the tightening procedure.

speaker before you begin:

- 1- Are any internal components (such as the crossover network) directly behind the location onto which you will be mounting the clamp assembly?

the back of the speaker and discover later that components are mounted on the inside rear, you will have to use a different OmniMount Model such as the 30.0 WB—. Review the options with your dealer. It is very likely that OmniMount will have a suitable alternative.

### Screw Related Installation Errors.

Drilling a pilot hole is necessary to prevent the wood from splitting. The pilot hole is also required to provide a straight pathway for the screw to travel as it penetrates the stud.

of the screw. (See Figs. 4 & 5)

holes that are too large for the diameter of the screw shaft significantly reduces



# Attaching the clamp assembly and the mounting

plate/ball shaft requires fasteners appropriately selected for strength and composition of the mounting surfaces involved. The type of fasteners and anchors OmniMount Systems has provided have been carefully selected. They are suitable for the majority of installation situations as discussed in these instructions. Occasionally, there will be an installation situation for which the fasteners provided are not suitable. If it is determined that different fasteners are required, they must always be 5/16 in. diameter for the mounting plate, 1/4 in. diameter for the clamp assembly. Fasteners must always be used in all available mounting holes. Never use smaller diameter fasteners (if you drill pilot holes, the holes should be smaller than the core diameter of the screws)

When no threaded inserts for mounting purposes

have been provided by the speaker manufacturer, a

speaker can still be safely mounted on the wall. But

you have to be sure that it is put together strongly enough with materials strong enough to support its

own weight with the #14 coarse thread screws and

made well enough and use adequate materials with

OmniMount assembly. The #14 screws should not

be used in masonite<sup>®</sup>, thin panel wood, or plastic. Such materials will likely require different fastening

hardware and methods. The speaker may also need

If your evaluation raises any questions about the

your dealer or the speaker manufacturer and

ASK QUESTIONS! More on this later...

speaker's construction or material strength, contact

More Precautions-Read this section carefully.

anchors provided. Most compact speakers are

adequate thickness for mounting with an

reinforcement to be mounted safely

Do not over-tighten fasteners. Over-tightening can weaken the mounting surface, damage the fasteners, and make the attachment less secure.



NOTE: A second person is necessary to hold the

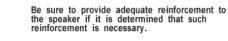
# Securing the clamp assembly to the speaker.

There are four things you need to know about your

- 2- Is the material you are mounting into strong enough to safely support the load?
- 3- Is internal reinforcement needed?
- 4- Are the fasteners provided suitable for your

NOTE: When mounting the clamp assembly, you will need a minimum of 1/4" clearance inside the speaker enclosure away from any internal components. The easiest way to find out if you have adequate clearance, is to check directly with the speaker manufacturer. Or, you can check yourself by carefully removing the largest driver (speaker component). Move any insulation out of the way and physically check the clearance. If you check by removing the driver, be careful not to over-tighten the screws when you replace it. If you had planned to mount the clamp assembly to

Usually, good quality speakers are made of good



Most manufacturers use 1/2" to 3/4" thick Medium Density Fiberboard (MDF), more commonly known as particle board or press board. Some high-end speakers are constructed of voidless Birch plywood. you are unsure A) about the suitability of the fasteners provided or, B) about the speaker's integrity of materials and construction in relation to how you plan to mount it—-Ask Questions!!! The speaker must be able to support its own weight safely over an extended period of time f you use the OmniMount Model 30.0 STMP- to suspend the speaker from its top, verify with the speaker manufacturer that the speaker is adequately constructed to carry its own weight, over time, suspended from its top.

# About drilling holes in your speaker...

## Question: Will I compromise the sonic (acoustic) integrity of my speaker?

Answer: Not really at all, as long as you fill the hole with a fastener

Factory installed inserts are often "sealed" with a machine screw which can later be used to attach the clamp assembly. Sometimes, threaded inserts that are closed-off or "blind" at the bottom are factory installed in speakers.

#### Question: If my speakers do not have inserts, will I void the speaker warranty if I drill holes into my speaker enclosure?

Answer: We have not found this to be the case (check if you want to). Speaker manufacturers want their speakers to sound their best and generally endorse the use of OmniMount products because the flexible placement and positioning OmniMount offers serves to improve the sound. Of course, if you "drill for oil" and hit some internal

components on the way, well, that's another story. But we do address how to avoid drilling holes too deep later in our installation instructions

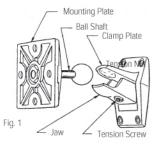
#### Question: What happens if I want to sell my speakers in the future?

Answer: Industry research shows that almost no one ever does. But, should you want to sell them in the future, OmniMount will likely add value to the sale.

## OMNIMOUNT 30.0STMP INSTALLATION INSTRUCTIONS

# DESCRIPTION

The OmniMount 30.0STMP model is used for securing your speaker to the wall, ceiling, floor deck, shelf, etc. The mounting angle can be adjusted by loosening the clamp assembly tension screw and lócked into position by simply tightening it. Each mount is rated for speakers weighing up to 30 pounds (11.4 Kg) and should be installed only on a vertical or horizontal surface. Surfaces must be strong, flat and stable. There are two basic components to this OmniMount system:



The mounting plate/ball shaft mounts to the mounting surface

 The clamp assembly-consisting of the clamp plate and jaw—mounts to the speaker. The clamp assembly provides the clamping action that surrounds and compresses on the ball, locking in the chosen angle of adjustment. (See Fig. 1)

### PREVIEWING THE PROCEDURE

The installation sequence consists of the following steps in this order:

- Mounting the clamp assembly to the speaker Attaching the mounting plate to the mounting surface
- Joining the clamp assembly to the mounting plate/ball shaft.
- Adjusting the position of the speaker and tightening the clamp assembly.

Before you begin, familiarize yourself with the installation procedures by reading through the precautions and installation instructions from beginning to end.

### TOOLS REQUIRED

- 1/4" allen hex wrench (supplied)
- 5/32" pilot hole drill bit
- Stud Finding Probes (supplied)
- Small hammer
- Drill motor, 3/16" and 5/16" drill bit
- Medium size crescent wrench
- 3/4" open-end wrench
- A medium to large phillips screwdriver
- A power driver with phillips head bit (optional)
- Masking tape
- A carpenter's bubble type level

### Fasteners etc. (Included)

- 6-Togglers®
- 4-#14 phillips screws
- 4-1/4—20 phillips machine screws
  4-5/16" x 3 1/2" long lag bolts
- 2–Stud Finding Probes
- 1–Hole Center Template

### ATTACHING THE CLAMP ASSEMBLY TO THE SPEAKER

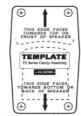


Have you read and understood all of the "PLEASE READ THIS FIRST" information in the preceding pages? If so, let's begin.

Fig. 2

 1.1-Place the speaker on a flat protected surface. Take care not to damage the drivers or speaker grille. If necessary, protect any protruding components on the front by blocking the speaker with cloth-wrapped 2 x 4's to raise the area where the damage could occur.

1.2-Place the template as indicated in Fig. 2 over the chosen location. Be sure the template is centered



and straight. Tape it down with masking tape. Locate the Stud Finding Probes. Use one and tap a mark in the center of each of the four corners of the

template—carefully in the middle of each "crosshair." Remove the template (See Fig 2)



- 1.3-Insert a 3/16" diameter drffl9bi€into your drill motor. Measure 3/4" from the end of the drill bit and wrap a piece of tape around the drill bit shaft allowing 3/4" to protrude. Carefully center the drill on each starter hole location and drill four holes slowly penetrating only to the bottom edge of the tape (3/4"). Remove the 3/16" drill bit and replace it with a 5/16" diameter drill bit. Measure 3/4" from the end of the drill bit and wrap a piece of tape around the shaft, allowing 3/4" to protrude. Carefully center the drill over the four existing holes and slowly drill down 3/4 of an inch to the bottom edge of the
- 1.4-You now need to separate the clamp assembly from the mounting plate/ball shaft components. Using the 1/4" allen hex wrench, loosen the tension screw in the clamp assembly until the jaw opens—ONLY enough so that you can release the ball. **Do not** unscrew the tension screw completely.
- 1.5-Place the clamp assembly over the holes to verify that the four holes are centered.
- 1.6-Remove the clamp assembly and hand insert four togglers into each hole. Using a hammer, tap gently until the bottom of the toggler flange is flush with the surface of the speaker (Fig. 3).

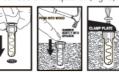


Fig. 3 Position the clamp assembly, as indicated in figure 3A. Insert the four screws through the clamp assembly and into each toggler.

Tighten firmly, but do not tighten excessively —Do not over-tighten. Tighter than "firm" does not add pull-out strength

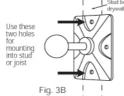
and over-tightening could weaken the installation.

Fig. 3A

## ATTACHING THE MOUNTING PLATE TO THE MOUNTING SURFACE

The mounting plate has four holes. For safe and secure installation it is absolutely essential that two of the

four holes be used to attach the mounting directly to a ceiling ioist or wall stud. (See Fig. 3B)

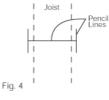


# Proceed as follows:

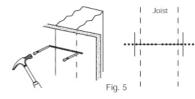
2.1-Locate the joist or stud onto which you will be mounting. You can find the approximate location of a stud or joist by using a device designed to do the task. There are electronic and magnetic stud (or joist) finders at home centers or hardware stores. Or, you can find the approximate location of studs or joists the "old fashioned" way: Using a small hammer, gently tap across the selected wall or ceiling area to which you will be mounting your speaker. Listen closely for a difference in sound. The hollow areas between the studs or joists will suddenly sound solid. Tap back and forth across the solid area until you hear the hollow sound on both sides. The center of the solid sounding area should represent the approximate location of the stud or

Another "old fashioned" method of finding the approximate centers of studs or joists is looking for visually discernable drywall nail heads. Sometimes you can make out the nail head locations, especially if the drywall finishing work was not meticulously executed

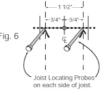
Pencil mark lightly where you think the stud or joist center is located. Position the mounting plate as in Fig. 3B over the approximate stud or joist center and lightly mark the hole locations (you will readjust these locations more precisely, later on). Now, remove the mounting plate. (See Fig. 4)



2.2-Locate the Stud Finding Probes. Remove one. You will use this to find the exact center of the stud or joist. Moving along the horizontal line, use a hammer to tap holes through the wall or into the ceiling. Alternating at each side, tap holes along the horizontal pencil line with spacing that is in no more than 1/16" increments, until you have located the outside edge of the stud or joist on both sides. (See Fig. 5)



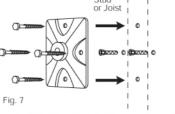
2.3-Once you have found the outside edges of the stud or joist, mark the hole locations at each side with a pencil and measure the distance between them. It should be approximately 1 1/2" between the two edge-locating holes. Split the difference-Measure 3/4" in from each end and mark the location. This location should be your center. Make a straight line with a pencil. Position the mounting plate over the pencil line. (See Fig. 6)



2.4-The pencil line you have made should be long enough to be visible as you look through the two joist ăttaching holes in the mounting plate. Center the two holes carefully in straight alignment over the hole centers and redraw, darkly, the hole locations.

NOTE: Check that the surface preparation and the fasteners will not interfere with electrical wiring, plumbing, duct work, etc., inside the wall or ceiling.

 Remove the mounting plate and prepare the mounting surface and all holes. Having located the exact center of the stud or joist, insert the 5/32" pilot hole drill bit into your drill motor. Drill four pilot holes; two into the wall stud or ceiling joist, two into the mounting surface. If the mounting surface is drywall you will use two togglers in the holes on either side of the stud or joist location holes. (See Fig. 7). Place the mounting plate on the mounting surface at your chosen location. Be sure to use all four supplied lag bolts in all four holes in the mounting plate. Stud



2.6-Having drilled the pilot holes for mounting to the joist or stud, drill the 1/4" clearance holes for the togglers in the two opposing locations. Now, insert the togglers into their appropriate two holes

Soap provides a good lubricant that makes it easier to drive a lag bolt into the stud. It does not take much soap to do the job. A bar of soap works best but laundry or dishwashing detergent may also be

Tap gently into place.

(See Fig. 7A) Tighten the bolts until they are snug against the mounting plate—But not so tight that the bolt head causes the mounting plate to deform. Do not over-tighten the fasteners.







3.1-With the appropriate size wrench, tighten the jam nut securely.

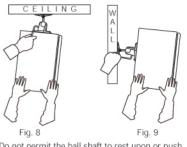
## JOINING THE CLAMP ASSEMBLY AND THE BALL SHAFT/MOUNTING PLATE

NOTE: You will need a second person (who we'll call "your assistant") to help lift and support the speaker.

Very important: When you tighten the clamp assembly, make sure the second person supports the weight of the speaker and make sure there is no contact between the clamp assembly and ball shaft.

As you orient and hold the speaker in position and tighten the tension screw, the only force acting upon the ball should be that of the clamp assembly compressing it. To accomplish this, the weight of the speaker must be supported fully, counteracting the forces of gravity that would otherwise act upon the

assembly during tightening. Two installers are needed for this; one will support the speaker while the other tightens the clamp assembly. (See Figs. 8 & 9)



Do not permit the ball shaft to rest upon or push against the clamp assembly. There should be no contact between the ball shaft and the clamp assembly components during the tightening procedure. Be sure to support the weight of the speaker. Do not permit the speaker to "hang" from the clamp assembly while you're tightening the tension screw. Be sure the clamp assembly is oriented in the proper direction, as indicated on the template in step 1.2.

4.1 Check again that the clamp assembly is open enough to clear the ball. Get the 1/4" allen hex wrench. Have your assistant lift the speaker into position and "pop" the clamp assembly onto the ball.

While your assistant supports the weight of the speaker, insert the long end of the hex key. Turn the hex tension screw clockwise to take up the slack in the clamp assembly but do not tighten— (the ball should be properly seated, and the speaker should still move easily). (See Fig. 10)

# ADJUSTING THE POSITION OF THE SPEAKER AND TIGHTENING THE CLAMP ASSEMBLY

5.1-Have your assistant orient and hold the speaker in its final position.

Helpful Hints: Use a carpenter's level to position the speaker parallel with the walls, floor or ceiling. To precisely focus a speaker's sound at a selected point in the listening area, try using a flashlight in a darkened room. With some masking tape, attach the flashlight to the top of the speaker facing out, over the front of the speaker enclosure (put a soft cloth underneath it to avoid scratches). Use the light beam to precisely image and focus the sound.

Caution: As you tighten the tension screw the only pressure on the ball should be that of the clamp assembly compressing it. Support the weight of the speaker. Ensure that there is no pressure from the force of gravity pulling or pushing on the ball. Ensure that the clamp assembly is not creating a lever by resting on or pushing against the ball shaft.

5.2-Now, insert the short end of the hex wrench. Start tightening the hex tension screw. (See Fig. 11)