



PAC-MAN COCKTAIL TABLE (ASSEMBLY INSTRUCTIONS)

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Introduction

First a story to let you know how and why I decided to make these plans. I first got involved into classic video arcade game collecting in the mid 90's. I had a friend who had a Ms Pacman cocktail table in his recreation room that I always loved to play. In 1998 I decided I would like to own my very own Ms Pacman cocktail game. By this time my friend had sold his and had no idea of where I could track it down. A few months later I found one for sale but my cash flow was a little low and I had to pass on it. In the mean time I got involved in MAME (Multiple Arcade Machine Emulation) and I was hooked. I thought a cocktail MAME machine would be the best way to go so I could play all of my favorite classic games. So I started searching the Internet for plans. The best plans I could find were not exactly what I was looking for and did not have much detail or information. Well, 3 years after my search for a cocktail Pacman game I finally found one about a mile from where I live. The owner was an old friend and it was in his daughter's room being used as a table for her stereo for over 6 years. I bugged him for about a month until I finally got him to sell it. It was in great shape but needed a monitor. The price?.....\$150.....a steal for the condition it was in. Being a purist in video collecting I decided to document the Pacman cocktail cabinet as I worked on a full restoration of the game. The result is a complete set of plans for a Pacman cocktail for myself and for anyone else who would be interested in making one.

Pacman Cocktail Table History

During my search for a Pacman/Ms Pacman cocktail game I noticed the design of the two cabinets are a little different. The right/left sides, the base, cutouts and the control panels of Ms Pacman are different from the original Pacman. I believe that the change in design was for cost savings and decreased time in the manufacturing process. The design I have here is for a Pacman cocktail table using the Ms Pacman design of overlapping corners. The original Pacman has a very complex corner that would be extremely difficult to manufacture at low cost. Plus the design has very little strength. The difference in the bases is that the Ms Pacman does not have one. The sides extend down past the bottom to elevate the cabinet.

Plan contents

This set of plans consists of two parts, design drawings and assembly instructions. Please read all of the instructions prior to cutting the parts so you get a good idea of how the cabinet is constructed. The cabinet parts are not that large so most of the parts can be cut from one sheet of 4 x 8 plywood. Depending upon the components that you use there will be variations in the cutouts on the sides and bottom of the cabinets. The cutouts shown are for original Pacman parts and not after market. If using new or after market parts you will need to purchase the components and make the cutouts to fit each component (coin door, fan, speakers, and vent covers). Note: When ordering a speaker make sure it is shielded speaker to prevent interference with the monitor. The cabinet is designed to be made out of a high grade plywood and will be covered with a wood grain laminate. If you chose you may make the cabinet out of Oak plywood and then stain to suit. To build a complete cabinet with control panels you will need the following tools and items.

Tools: Skill saw

Jig saw Power Drill

Plate Jointer (Not necessary but highly recommended to make strong joints)

Screwdrivers C-Clamps Bar Clamps Belt Sander T-molding cutter

Parts: (1) 4' x 8' x 3/4" Thick sheet of plywood (cabinet)

- (1) 2 x 3 x 1" Thick sheet of standard plywood (Top)
- (1) 1" x 1" x 19" long Piece of pine
- (1) 1/4" x 3/4" x 36" long Piece of pine
- (3) 5 1/2" x 9" x 3/4" Thick plywood for coin box (Optional)
- (4) Leg levelers/glides
- (4) Tee Nuts for mounting the leg levelers
- (2) Lock down clips to lock the hinged top to the cabinet

- (1) Piano Hinge or (2) cabinet hinges <u>www.rockler.com</u>, Piano Hinge #19431, Full back to back cabinet hinge #29017,
- (2) 3/4" x 4 3/4" x 11 Piece of white Plastic/Plexiglass for behind control panels
- (2) Vent covers
- (1) Speaker (Shielded) with speaker cover
- (4) Glass clips. Can be purchased from (www.twobit.com) or (www.mantisamusements.com)
- (1) Bag of Biscuits (size 10, used for making strong corners)
- (2) Control panels for Pacman (<u>www.twobit.com</u>) or (<u>www.mantisamusements.com</u>) Detail is also supplied so you can make your own
- (1) Roll of Oak laminate (Used over plywood to finish cabinet) (www.Happcontrols.com)
- (1) Coin door
- (1) Carpenters Wood glue
- (18) #8 Wood screws 1/2" long, Flat head slotted
- (16) #8 Wood screws 1 "long, Flat head slotted
- (24) #8 Wood screws 1 1/2" long, Flat head slotted
- (16) #8 Wood screws 2" long, Flat head slotted
- (1) 1" Wide T-molding, Black, (10 Feet) (<u>www.T-molding.com</u>)
- (1) 3/4" Wide T-molding, Black Leather texture, (7 Feet) (www.T-molding.com)
- (1) Cooling fan and fan guard, (www.Happcontrols.com)
- (1) Monitor brackets (<u>www.mantisamusements.com</u>)

Links

If you are interested in viewing other cocktail projects check out the Ms Pacman cocktail in the projects section at this site: www.ArcadeFever.com

I would like to note that www.MantisAmusements.com has a great selection of Ms Pacman parts. If you purchase their Ms Pacman control panels you will need to modify the cutouts on this project. I suggest you purchase your control panels prior to making the control panels cutouts.

If you are interested in video game collecting check out the Google newgroup located at google.com

Rec.Games.Video.Arcade.Collecting

If you have any questions I can be reached by email: Kyle Lindstrom, (lindstromk@hotmail.com)

Assembly Instructions

Only start the assembly process once all of the parts have been made for the entire project and the T-Molding groves are cut.

Step 1

The first part of the assembly process is to assemble the base of the cabinet. This is done using biscuits and assembling item 11 (Qty 4) to form a box as shown below. The corners are reinforced with corner supports (Item 12) using 1 1/2" long wood screws and glue. Item 12 to be flush with top of Item 11 as shown below. (Note: Use glue on all biscuit joints).

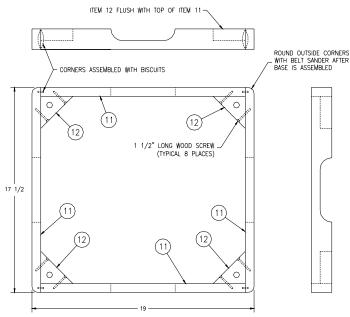


Figure 1

Step 2

Next attach the base to the cabinet bottom (Item 6) using 2" long wood screws. Slightly recess the holes for the screws 1/4 " deep before installing. Use 4 screws per side. See below for hole locations

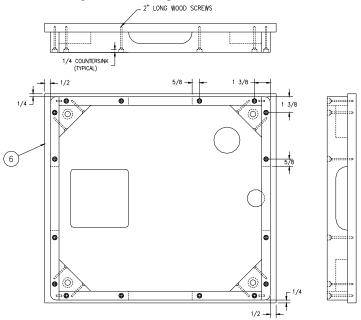


Figure 2

Here is what the base should look like at this point in the assembly. Note: Not all holes and screws are shown. This is a 3D rendering and showing all of the holes and screws would cause the drawings to become very large.

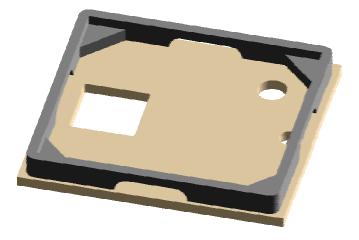


Figure 3

 $\underline{\underline{Step \ 3}}$ The next step in the assembly is to install the sides of the cabinet to the base fabrication. This is also done using biscuits. I suggest using at least 4 biscuits per side to make a strong joint. Use bar clamps to pull the joints together during gluing. The edges of the sides will be flush with the front and back edges of the base. Note the location of the right side (oval speaker cutout) and the location of the fan cutout on the base fabrication.

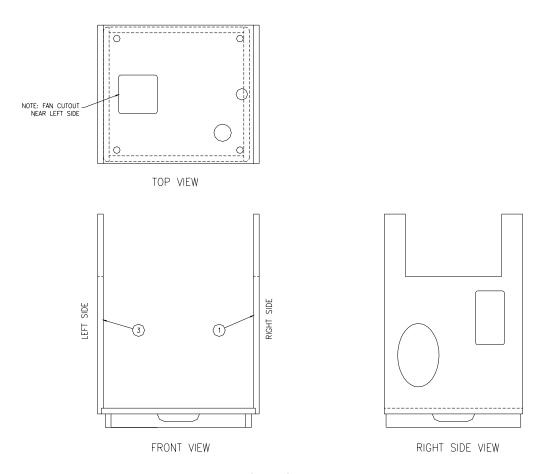


Figure 4

This is what the cabinet will look like once the right side (Item 1) and left side (Item 3) are installed to the base fabrication. Note the locations of the cutouts.

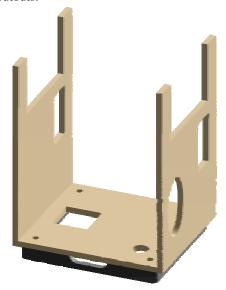


Figure 5

Step 4

After the right and left sides are attached install the front panel (Item 2) to the cabinet. Place the front (Item 2) on the cabinet and center it so there will be 1/4" overhang on both sides of the cabinet. The top of the front panel will be flush with the sides. Also the T-Molding grooves will be vertical. There is a top and bottom to the front so measure the distance to the opening to determine which end is the top. Use biscuits and glue on sides. Next install the corner gussets (Item 13) in the upper corners flush with the top of the cabinet as shown below. Use (4) 1" long wood screw to attach each gusset.

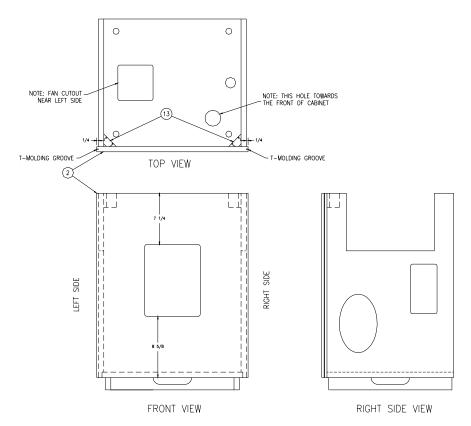


Figure 6

This is what the cabinet will look like once the front of the cabinet is installed. This view is from the rear of the cabinet looking at the forward. Note: The corner gussets (Item 13) are flush with the top of the cabinet.

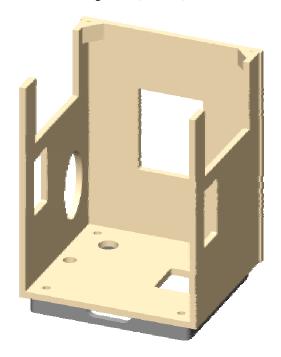


Figure 7

Step 5

The next step it to assemble the two rear cabinet panels (Items 4 & 5) together using either a single piano hinge or (2) flush cabinet hinges. This area will be custom fit depending upon which hinges you plan to use. Hinges differ in shape size and thickness so once the two panels are attached the overall length will need to be measured. The length needs to be 26" long. If it is longer than that, trim the bottom panel so the overall length is 26". Once the rear side assembly cut to the proper length attach (Item 14) to the top of (Item 4) as shown below. Secure in place using glue and (4) 1 1/2" wood screws.

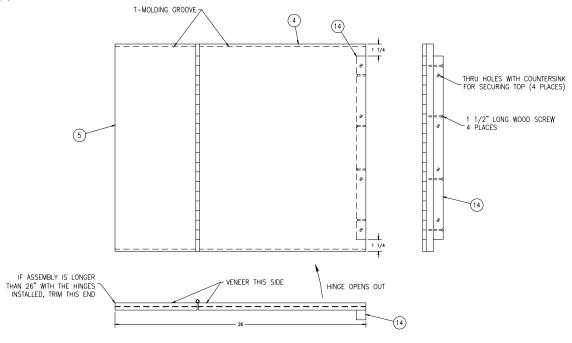


Figure 8

Step 6

Next attach the rear assembly to the cabinet. Only the bottom panel (Item 5) attaches to the cabinet while the top panel (Item 4) hinges open. The top panel "MUST" be flush with the top of the cabinet. Lay the cabinet down so the front panel is on the floor. Place the rear panel on the cabinet and center it so there is 1/4" overhang on both the right and left sides of the cabinet. The top will be flush with the top of the sides. Mark this location and secure the lower panel to the cabinet using glue, biscuits and (2) of item 13 as shown below.

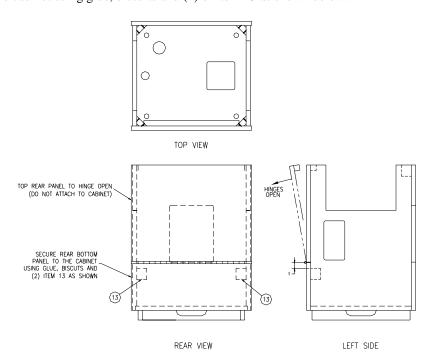


Figure 9

Once the rear is attached the cabinet will look like this. The view on the left is a view of the cabinet from the front with the front panel removed to help show the support gussets (Item 13). The view on the right is a rear view of the cabinet with the top rear panel in the open position.

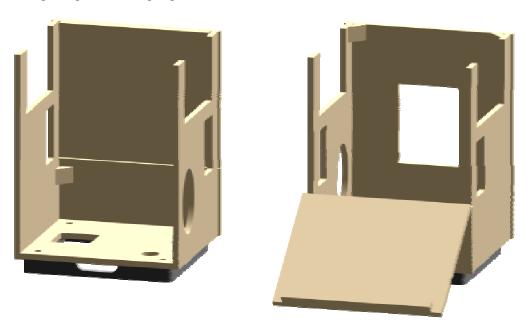


Figure 10

Front view with front panel removed

Rear view in the open position

<u>Step 7</u>

The next step is to install the top to the hinged rear panel. Clamp the rear hinged panel in the closed position using a bar clamp. Next place the top (Item 10) on to the top of the cabinet. Center the top so the left and right sides have the same overhang and the front and rear have the same overhang. Once it is centered, trace the rear top panel location to the underside of the top (Item 10) to mark its location. Remove the top and place upside down. Remove the hinge(s) from the rear lower panel of the cabinet so the rear top panel is removed. Place the rear panel in the location you just marked earlier on the underside of the top. Glue and screw the rear panel to the top using (4) 1 1/2" long wood screws. Set this top assembly aside to dry and so it can be installed later in the assembly process. The view on the left shows how the top should be placed and centered on the cabinet. The grooves around the cutout in the top (Item 10) should be facing upward. The view on the right shows how the top rear panel attaches to the top.

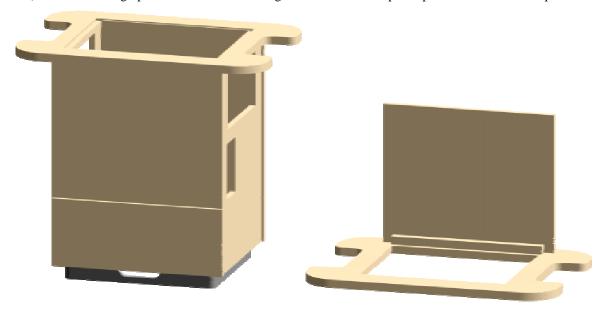


Figure 11

Top centered on cabinet

Rear top panel attached to top

Step 8

With the top assembly finished and removed from the cabinet it is now time to assemble the control panel frames. The two control panel frames are identical. They will first be assembled separately and then installed onto the cabinet. Each control panel frame consists of (1) Item 7, (1) Item 8 and (1) Item 9.

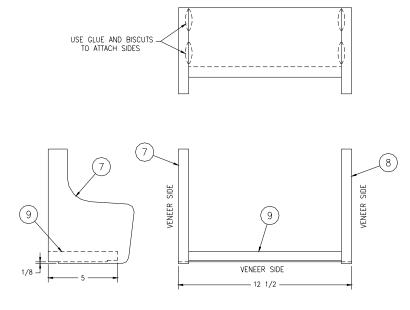


Figure 12

This is what the control panel assemblies will look like before they are installed in the cabinet.

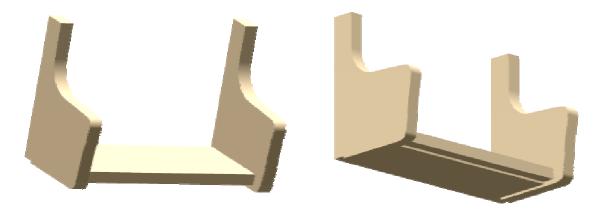
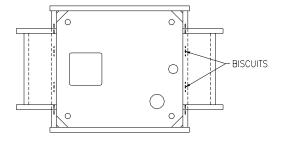


Figure 13

Step 9

Once the control panel frames are assembled they can be installed into the cabinet. Both control panels are the same and will mount identically. Use biscuits to join the bottom of the control panel to the cabinet. The sides (Item 7) and (Item 8) will attach to the cabinet using (4) 1 1/2" wood screws per control panel. Test fit the control panels into the cabinet and locate where the holes in (Item 7) and (Item 8) should be. The back edges of (Item 7) and (Item 8) will be flush with the inside of the cabinet. Using glue, screws and biscuits mount the control panels to the cabinet as shown below.



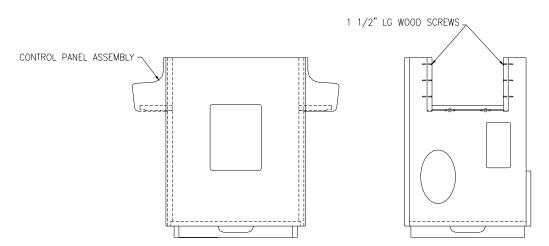


Figure 14

Once the control panels are installed in the cabinet it show look like this.

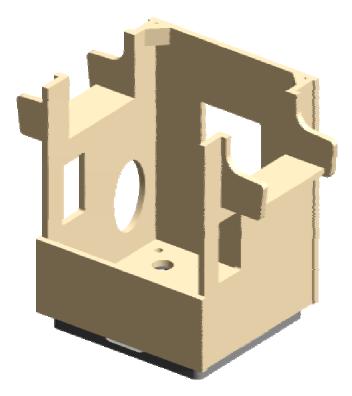


Figure 15

<u>Step 10</u>
Next install the stop blocks on the control panels. They will be used as a stop when the plastic back is installed above the control panels. The blocks are strips 1/4 x 3/4 x 4 1/2 long pieces of wood. They will be glued and tacked in place over the screws as shown below. When installed they will be flush with the inside of the cabinet.

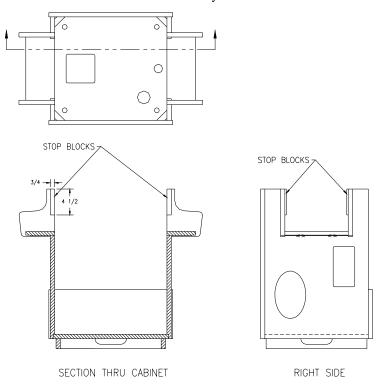


Figure 16

Here is a view of the blocks installed. The blocks are shown darker for clarity.

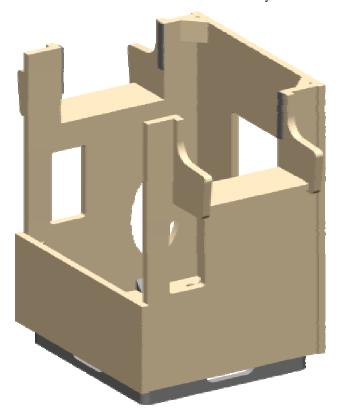
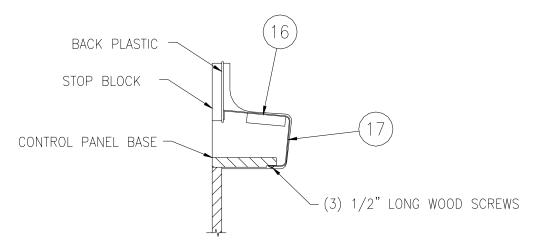


Figure 17

Step 11

At this point the cabinet is really starting to take shape. The next steps are to mount the metal control panels (Item 17), their plastic backs (Item 18) and their brackets (Item 19). Place the control in place such that the bottom lip of the control panel is under the control panel base (Item 9). While holding the control panel in place put the plastic back between the stop blocks you just installed and the upper lip of the control panel. This is where the control panel should be mounted. Using a pencil mark the location of the bottom lip on the control panel. Drill (3) 1/8 dia. Pilot holes in the bottom lip of the control panel. Mount the panel in place using #8 x 1/2" long wood screws. Next glue and tack the stop blocks (Item 16) under the control panels for support. Locate as shown below.



SECTION THRU CONTROL PANEL

Figure 18

To finish the installation of the control panels you need to install the back plastic (Item 18) and the control panel brackets (Item 19). Locate the plastic in place (in front of stop blocks and behind the lip of the control panel). The top of the plastic should extend approximately 1/8" above the top of the cabinet. Locate the position of the control panel bracket (Item 19) such that a hole can be drilled in the back plastic and into the upper lip of the control panel. Drill a pilot hole and install the bracket using #8 x 1/2" long self tapping screws. Using a #8 x 1/2" long wood screw mount the other end of the bracket to the cabinet. Do this to both sides and the control panel and to the other control panel. It should look like this.

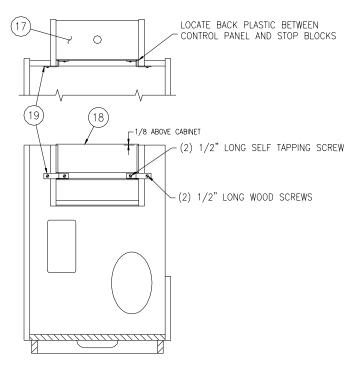


Figure 19

This is what the cabinet will look like with the control panels installed.

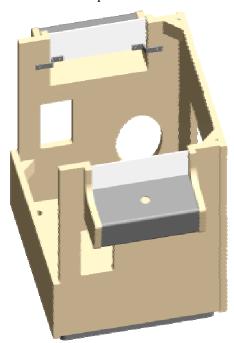


Figure 20

Step 12

Now take the top assembly and carefully place it on top of the cabinet in it's correct location. It will be resting on the plastic back panels. Using a pencil mark the locations of the panels on the bottom side of the top. Now remove the top and router a 1/4" deep x 1/4" wide groove on the bottom side of the top where you just marked. This groove will allow for clearance of the plastic back panels. The bottom side of the top will look like this.

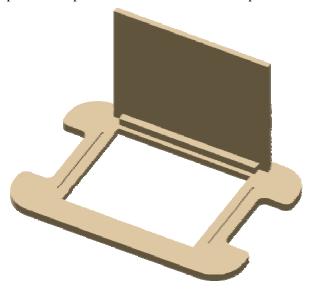


Figure 21

Step 13

Depending upon what coin door is used you can construct a coin box using plywood. Here are the dimensions for an original Pacman coin box. Construct the coin box using (3) Item 20, with biscuits and glue. Now install the coin box into the cabinet centering it below the coin door cutout as shown below.

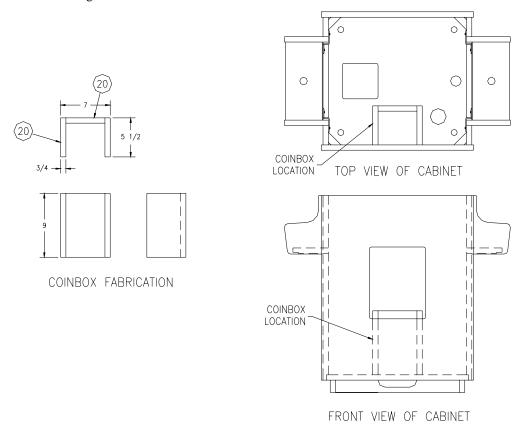


Figure 22

Step 14

After the coin box is mounted reinstall the top to the cabinet with the hinge(s). Construction of the cabinet is basically complete. Now the hardware will need to be installed. The top lockdown clips will be mounted inside the cabinet on both sides of the coin door cutout to secure the top. The leg levers will also need to be installed with their hardware. Here are some views of the completed cabinet complete with T-molding installed. (T-molding color is green for clarity only. Actual T-molding should be black)

