

## Instructions to install the GameBoards USA 19" LCD monitor in a cocktail table video game cabinet

Start by checking to be sure the game is unplugged from the wall!

And just so we're on the same page, whenever we refer to the old monitor we mean the COMPLETE monitor; the glass picture tube, the metal chassis it is attached to, and the circuit board that's mounted to the chassis. It should look something like this:



OLD STYLE GLASS PICTURE TUBE MONITOR

### This is our technician, Roxie, with a typical Ms. Pac-man cocktail table model cabinet.



In the next steps we will be removing the old CRT,

(glass picture tube type) display from your cabinet. We're

working

with a Ms. Pac-man, but all Cocktail Table cabinets will be quite similar.

Start by opening the coin door.



Turn your hand so that your palm is towards you.



Reach up into the cabinet and find the hold-down latches.



There is one on each side, indicated by the red Xs.

Use your thumb to pull the latch away from the wood.

This will release the Top Panel, which has the old monitor attached to it.

## Go find a suitable box or other solid object that can hold 50 LBS and is approximately 12 inches tall.



Place it behind the cabinet so it will catch the HEAVY top when you open the cabinet.

WARNING: Don't ignore this step.

If the top falls to the floor, it will break the top glass!

A new top glass is available on our Website at GameBoardsUSA.com!



### Lift the top.

Be extremely careful: The top is very heavy. As it hinges over, it will get lighter

until you reach a point where it is perfectly balanced. BE PREPARED, for as you pass the balance point, it will suddenly

get VERY HEAVY and it will want to pull out of your hands and fall to the floor.



You remembered to place a support box behind the machine to catch the top though, right?

Success! The top with the monitor attached is now securely sitting where we can work on it.



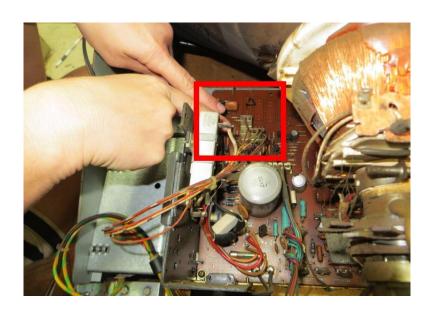
Locate the two pin connector attached to the back of the old monitor.

Pinch the plastic ears to release the two halves and pull them apart.

Pull by the plastic connectors, NOT by the wires.



Locate the two signal connectors with are plugged into the old monitor circuit board.

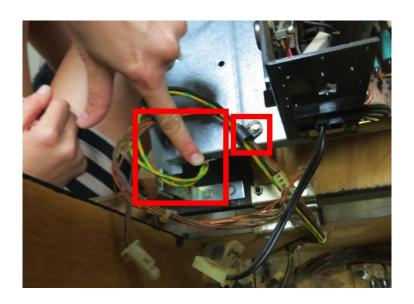


Pull them loose, again, DON'T pull on the wires.



Push the ground clip that Roxie is pointing at off of the old monitor chassis.

Unscrew any plastic clips which are securing the wiring harness to the monitor chassis.

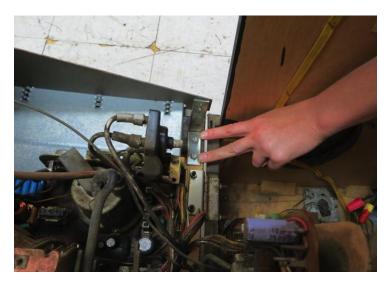


### Here Roxie is showing us all of the connectors disconnected from the old monitor.



If your cabinet has support brackets attaching the bottom of the old monitor to the wood, remove them.







Roxie is reminding you to put any screws or other small parts you remove into a handy container.

Don't lose any screws!

Grab a phillips head screw driver and remove SIX of the EIGHT clips that hold the top glass in place.

DO NOT remove the two bottom clips which are supporting the weight of the top glass.

If the clips are all rusty, you can get a new set from us on our website!!





Grab the top glass and lift it off the bottom clips. You may have to loosen the screws slightly to get them to let go.



If the graphic underlay is wrinkled from age, call us immediately. We have a couple of these left that are not listed on our website!

Place the top glass in a safe place while you install the new monitor.



Close the top, but don't latch it down. It should look something like this.





Lift out the gray plexiglass sunlight shield and set it aside. We won't be replacing it into the cabinet.



Remove any screws which are securing the black plastic bezel around the old monitor.

Lift out the black plastic monitor bezel and set it aside.

We won't be replacing it into the cabinet.



Locate and remove the six screws holding the monitor to the wood cabinet top.





Once again, open the top onto the support.

The old monitor with the brackets attached can weigh as much as 50 LBS.

### DON'T TRY TO REMOVE IT BY YOURSELF!

Get someone to help you as you slide the old monitor out. Be careful of the narrow end of the picture tube. It's extremely fragile.



Slide it out slowly and carefully. Don't rush this.



# Dispose of the remains of the old monitor properly as you would any dead television set or computer monitor.



Rejoice in the fact that the top is now so light that you can close it with one finger!



Carefully open the box containing your new LCD display.



Remove the new mounting brackets and set them aside.

The cardboard spacer under the brackets contains the new power supply and power cord.

Set them aside as well.



Carefully lift the new display out of the box and set it FACE DOWN.

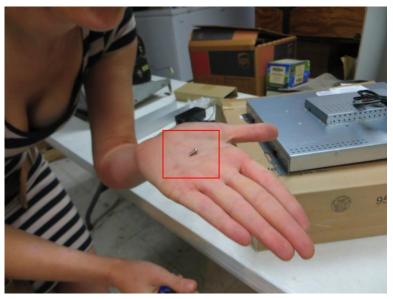
The shipping box makes a good work surface to install the

mounting brackets as you will see shortly.





Locate and remove the three tiny screws which are securing the small mounting brackets to each end of the new monitor.



BE CAREFUL not to drop the screws.

They are very small and you must re-use them.

If you try to use longer screws, they will go in too far and damage your new monitor!



Remove both brackets and set them aside.

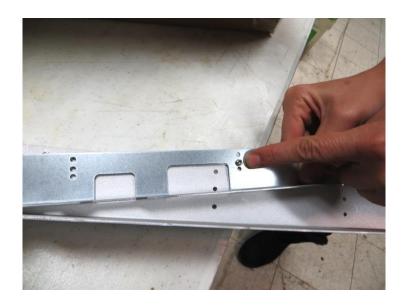
#### You should now have:

- The new 19" LCD display screen
- The two small mounting brackets you just removed and six tiny screws
- The two new mounting brackets provided loose in the box
- The power supply module (the small black brick) and
- The power cord for the power supply

The small brackets have three rows of holes.

The large brackets also have three rows of holes.

The brackets can be installed in many different configurations to raise or lower the monitor to fit your particular cabinet.



In a typical Bally / Midway cabinet like Ms. Pac-man, the middle row of both brackets is a good fit.



We recommend that you use the smaller bracket to stiffen the larger bracket as Roxie is demonstrating here.





Install the brackets at both ends the same way.



Roxie is pointing out that the connectors on the back of the new LCD monitor are on the LEFT side. If you screw up the picture will be upside down, but it only takes a minute to turn it around.



Set the new LCD monitor in place. In a Ms. Pac-man cabinet, the left side

of the monitor with the connectors faces away from the coin door.



That's starting to look pretty good!



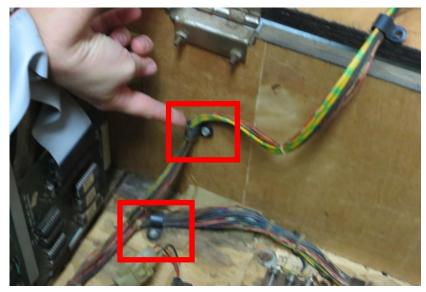
Replace the six mounting screws.



Open the incredibly lightweight top.



Locate the 6 pin and the 3 pin signal connectors that we unplugged from the old monitor board. They will probably be a little bit too short to reach the connectors on the new LCD monitor.



We'll have to gain some slack by unscrewing the first few plastic gizmos holding the wiring harness to the cabinet.



Get out your 1/4" nut driver and unscrew them. Don't lose them; we're going to re-use them. Once they are loose, you will have enough slack to plug the connectors into the new LCD monitor.



### LOOK CLOSELY AT THIS PICTURE:

This is where most people get into trouble.

The first four positions on your left have wires in them.

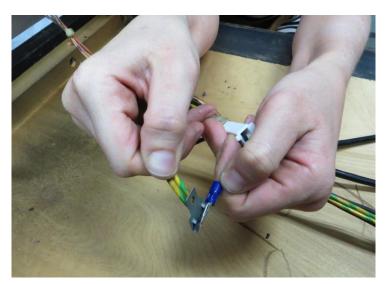
The last two positions on the right have wires in them

THERE IS A SPACE BETWEEN THE TWO CONNECTORS.

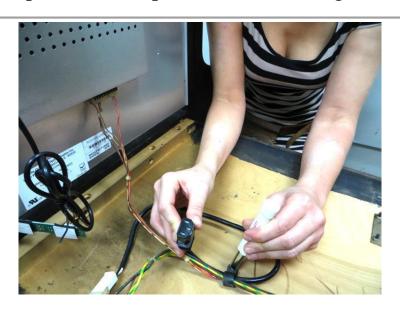
THEY DO NOT TOUCH EACH OTHER!



Grab the ground clip we removed from the old monitor chassis and the loose green ground wire in the power supply harness.



Push the clip into the green wire connector. If necessary, squeeze the clip to make it hold tighter.



Use one of the wiring harness gizmos to secure the power supply harness to the cabinet door.

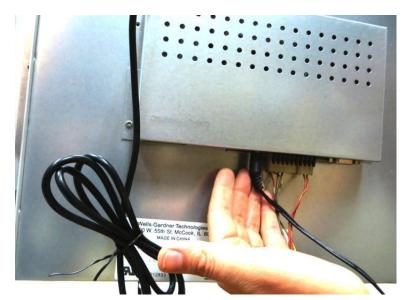


Plug the power supply brick into it's mating plug.



Use another of the harness gizmos to secure the wire coming out of the power supply brick.

Loop the wire around itself once to hold the brick in place.



Plug the round barrel connector from the power supply into the new LCD monitor.



Unwrap the small control board with the pushbuttons on it coming it from the monitor.

Place it somewhere that you can reach it through the coin door when the game is all sealed up.

Be careful that it doesn't short out against anything metal. You

## will probably never need to use it, but you don't want to have to open up the whole cabinet if you do.



Close the cabinet and remove the protective plastic cover from the front of the monitor.

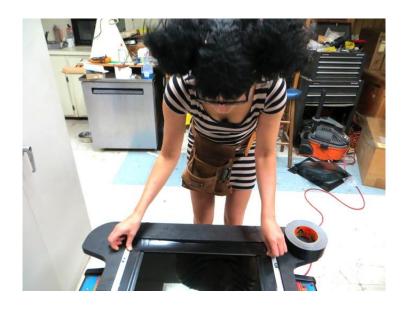


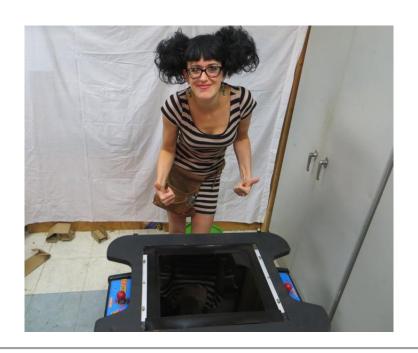
Although it is not necessary to do so, you may wish to mask around the monitor so that the metal

### frame doesn't show. We like Gorilla brand tape because it doesn't shrink over time like duct tape does.



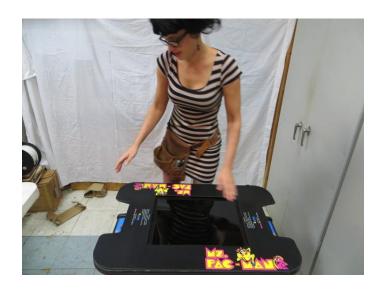
Be careful to cover the metal, but don't get tape on the display screen.







Grab the graphic underlay which goes under the top glass. Clean the old one good if you didn't buy a new one like this from us!



Remove the last two glass hold-down clips from the wooden top. Center the underlay on the wooden top. If you didn't buy a new top glass from us here at GameBoardsUSA, clean the old one the best you can and place it centered over the graphic underlay.





Replace those last two clips and screw them in to hold the weight of the top glass so you can open the top.

Pop all eight clips into place. You're almost done!!



Open the top and replace the six remaining hold down screws.



Close it up.
Latch the latches.
Plug it in.

Play your video game all night!
If you have any problems just give us a call and we'll be happy to talk you through it.

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