



## **Force & Ion Touchscreen Replacement**

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PM0331-05



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## Megatouch Touchscreen Replacement

*CONTENTS:*

QTY	PART NUMBER	DESCRIPTION
1	HW8087	3/8"W X 3/16"T FOAM TAPE
1	HW8067-02	3/8"W X 1/8"T FOAM TAPE
1	HW8067	1/2"W X 1/32"T FOAM TAPE
1	HW8086	1/2"W X 1/16"T FOAM TAPE (SINGLE SIDED)
1	HW8078	1"W POLYESTER TAPE
1	HW8061-01	ALCOHOL WIPE

### FORCE EVO, EVO WALLETTTE AND ELITE EDGE GAMES

#### *Touchscreen Removal*

1. Turn off and unplug the game.
2. Unlock and open the CPU section and place something under the front bezel to brace it when the strain relief cord is disconnected.
3. Remove the two screws securing the touchscreen controller to the game, then disconnect the cable from the back of the controller. Also disconnect the Molex connector (orange and gray wires) running from the touchscreen controller cable to the main power harness.
4. Remove the (6) screws fastening the LCD mounting bracket to the game (one screw also fastens the strain relief cord) and remove the bracket. See Figure 1.
5. Disconnect all connections to the LCD monitor until you're able to slide the monitor out of the game.
6. Note the orientation of the touchscreen cable before removing the screen. Then use dental floss to carefully cut the foam tape holding the touchscreen to the monitor until you are able to completely remove the screen.
7. Remove any remaining adhesive residue with denatured alcohol, then clean the monitor glass with the supplied alcohol wipe.

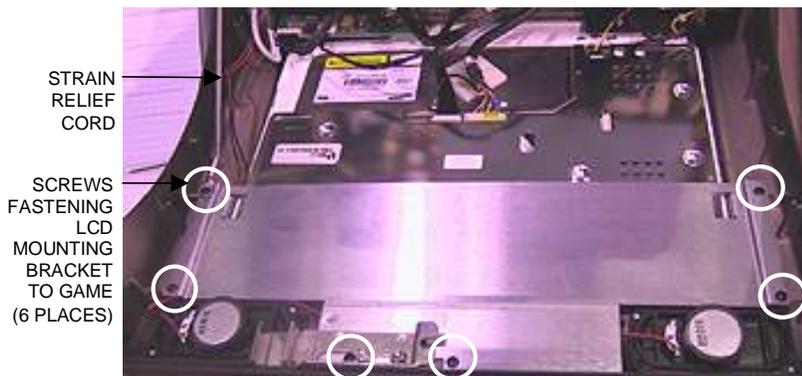


FIGURE 1 - FORCE EVO/EVO WALLETTTE - MONITOR REMOVAL

### ***Touchscreen Installation***

8. Clean the reverse side of the replacement touchscreen with the supplied alcohol wipe.
9. Cut pieces of the supplied 1/2" double-sided foam tape long enough to cover each edge of the screen without overlapping. After the tape is in place on the screen, peel off the backing.
10. Replace the new touchscreen over the monitor in the same manner as the old screen, making sure the screen is properly and evenly aligned over the monitor glass. Then clean the front of the screen with the supplied alcohol wipe.
11. Slide the LCD monitor assembly back into the game and reconnect all cables to the monitor.
12. Replace the LCD mounting bracket in the game and fasten it with the 6 screws removed earlier. Also refasten the strain relief cord.
13. Connect the new touchscreen controller cable in the back of the controller and secure the controller in the game with the existing hardware. Also connect the Molex connector (orange and gray wires) to the main power harness.
14. Plug in and turn on the game.
15. Once the game has booted up, press the "Calib" button on the OSD board and perform a touchscreen calibration. Then, ensure that the screen is properly aligned, and make any necessary adjustments with the monitor controls on the OSD board.
16. Close and lock the CPU section.

### **FORCE RADION/ FUN ZONE JR. GAMES**

#### ***Touchscreen Removal***

1. Turn off and unplug the game.
2. Unlock and open both side doors and the rear door.
3. Remove the cash box.
4. Remove the screw securing the strain relief cord to the rear door, then remove the monitor board from the velcro on the rear door.
5. Remove the screws holding the rear bezel to the game. Five screws are located along the top edge of the game and 2 are at the bottom rear of each side of the game. See Figure 2.
6. Lift the rear bezel from the game.
7. Remove the 4 screws holding the front bezel to the game. Two screws are located at the bottom on each side of the game (see Figure 2) and 2 are on the top surface (see Figure 3).
8. Lift the front bezel from the game.
9. Remove the two nuts and washers securing the touchscreen controller (see Figure 3) to the game and remove the controller from the mounting screws. Then disconnect the cable from the back of the controller and disconnect the Molex connector (orange and gray wires) running from the touchscreen controller cable to the main power harness.
10. Remove the black poly tape from around the edges of the old touchscreen. Remember how the tape was placed in order to tape the new touchscreen.

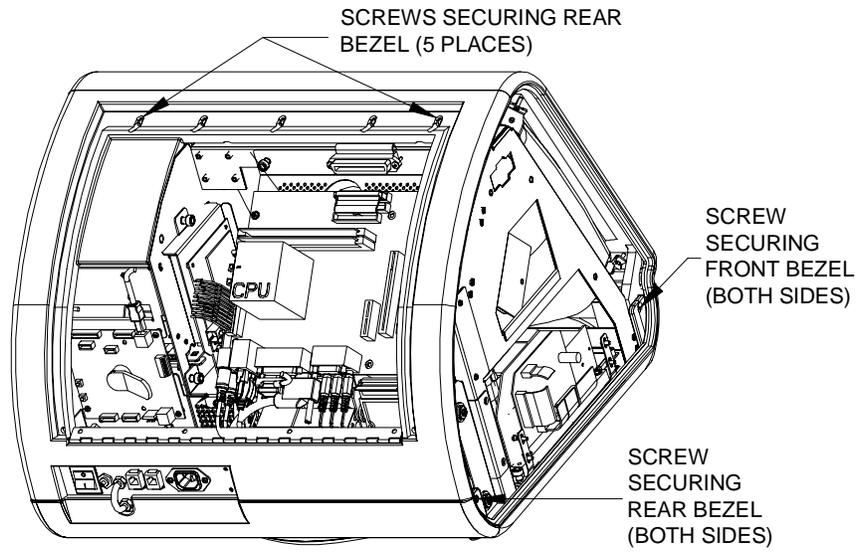


FIGURE 2 - FORCE RADION/FUN ZONE JR. - FRONT AND REAR BEZELS

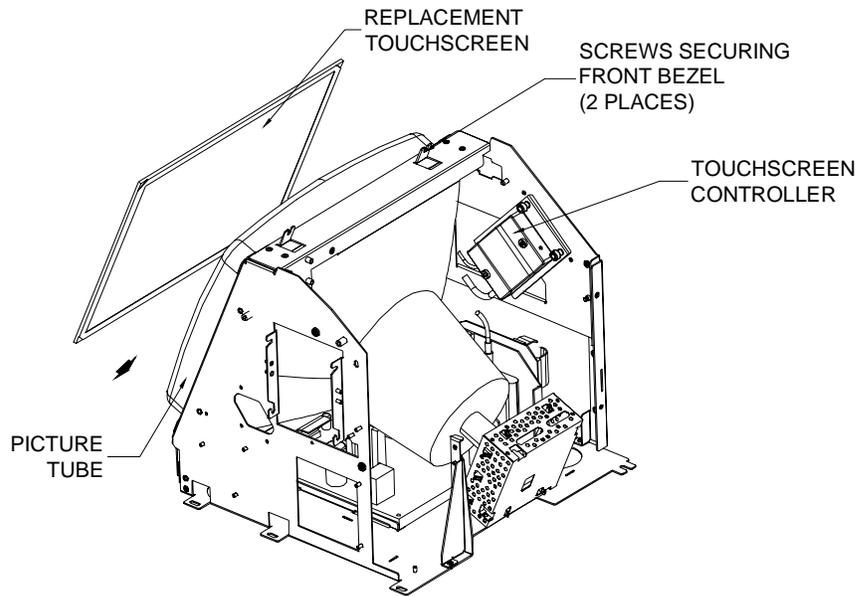


FIGURE 3 - FORCE RADION/FUN ZONE JR. - MONITOR ASSEMBLY

11. Use dental floss to carefully cut the foam tape holding the touchscreen to the picture tube until you are able to completely remove the touchscreen.
12. Remove any remaining adhesive residue with denatured alcohol, then wipe the surface of the picture tube with the supplied alcohol wipe.
17. Remembering the manner in which the tape was placed around the touchscreen you removed, place and cut a length of the supplied black poly tape evenly over an entire edge of the touchscreen and repeat until all 4 edges are covered.

### ***Touchscreen Installation***

13. Clean the reverse side of the replacement touchscreen with the supplied alcohol wipe.
  14. Peel the backing from the 8 pieces of foam tape already adhered to the reverse side of the touchscreen. Then cut 8 pieces of equal size from the supplied roll of 3/8" double-sided foam tape (the thinner of the two supplied 3/8" rolls) and place them (backing side facing out) on the tape already on the touchscreen before peeling off the backing. The double-thickness of the foam tape will allow enough distance between the touchscreen and the picture tube once the new screen is in place.
  15. Replace the new touchscreen over the picture tube (with the cable on the left if you are facing the game), making sure the screen is properly and evenly aligned over the picture tube. Then clean the front of the screen with the supplied alcohol wipe.
  16. Connect the new touchscreen controller cable in the back of the controller and secure the controller on the mounting screws in the game with the existing hardware. Also connect the Molex connector (orange and gray wires) to the main power harness.
  18. Place and cut a longer length of black poly tape around all 4 edges of the screen.
- NOTE: Use the additional 3/8" foam tape (the thicker of the two supplied 3/8" rolls) if you need to replace the gasket on the inside of the front bezel. Be sure to remove all of the existing foam tape and adhesive first.***
19. Replace the front bezel and the 4 screws (2 at the bottom, 2 at the top) holding the bezel to the game. See Figures 2 and 3.
  20. Replace the rear bezel and the 7 screws (5 along the top edge, 2 at the bottom rear) holding the bezel to the game. See Figure 2.
  21. Replace the screw securing the strain relief cord to the rear door, then replace the monitor board.
  22. Replace the cash box.
  24. Plug in and turn on the game.
  25. When the game is finished booting, calibrate the touchscreen. Then, ensure that the screen is properly aligned, and make any necessary adjustments with the monitor control board.
  26. Close and lock the rear door, then replace and lock both side doors.

## FORCE CLASSIC GAMES

### *Touchscreen Removal*

1. Turn off and unplug the game.
2. Unlock and remove the coin box or coin box/bill acceptor assembly.
3. Unlock and open the rear door. To remove the lid, first disconnect the fan power connector, then the clear drainage tubing (from lid end) and ground strap. Also remove the monitor control board attached with velcro to the inside of the game. Then press up on the spring-loaded levers (located on each side of the lid), push the levers forward, and lift and remove the lid. Remove the front bezel. See Figures 4 and 5.
4. Remove the 2 nuts and washers securing the touchscreen controller to the game, and remove the controller from the mounting screws. Then disconnect the touchscreen controller cable

from the back of the controller and disconnect the Molex connector (orange and gray wires) running from the touchscreen controller cable to the main power harness.

5. Remove the black poly tape from around the edges of the old touchscreen. Remember how the tape was placed in order to tape the new touchscreen.
6. Use dental floss to carefully cut the foam tape holding the touchscreen to the picture tube until you are able to completely remove the touchscreen.
7. Remove any remaining adhesive residue with denatured alcohol, then wipe the surface of the picture tube with the supplied alcohol wipe.

### *Touchscreen Installation*

8. Clean the reverse side of the replacement touchscreen with the supplied alcohol wipe.

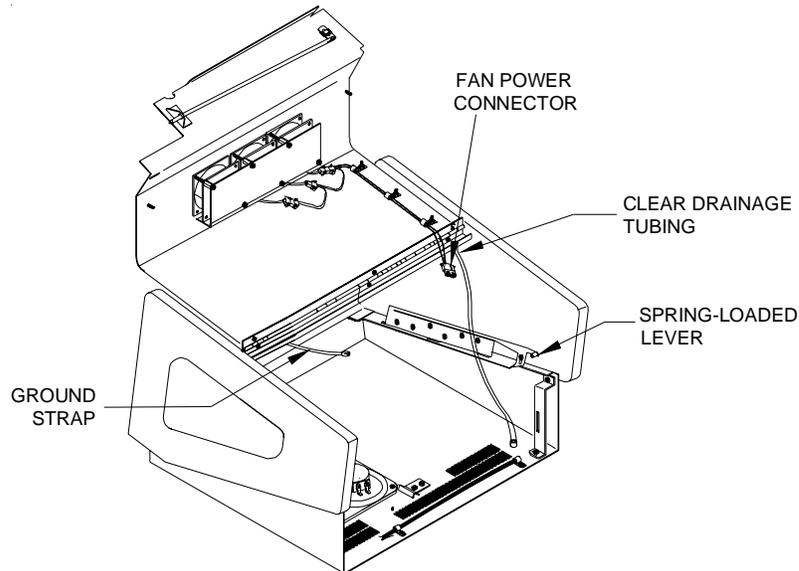


FIGURE 4 - FORCE CLASSIC - HOOD ASSEMBLY

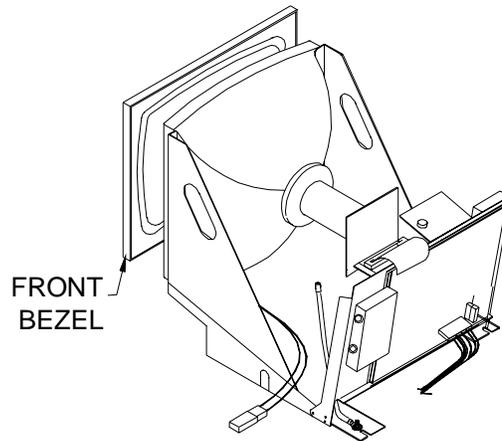


FIGURE 5 - FORCE CLASSIC - MONITOR ASSEMBLY

9. If there is no tape already on the screen, cut pieces of the supplied 1/2" double-sided foam tape long enough to cover each edge of the screen without overlapping. After the tape is in place on the screen, peel off the backing.
  10. Replace the new touchscreen over the picture tube (with the cable on the right if you are facing the game), making sure the screen is properly and evenly aligned over the picture tube. Then clean the front of the screen with the supplied alcohol wipe.
  11. Remembering the manner in which the tape was placed around the touchscreen you removed, place and cut a length of the supplied black poly tape evenly over an entire edge of the touchscreen and repeat until all 4 edges are covered.
  12. Place and cut a longer length of black poly tape around all 4 edges of the screen.
  13. Route the new touchscreen controller cable under the picture tube and away from the flyback transformer. Then re-connect the cable in the back of the controller and secure the controller on the mounting screws in the game with the existing hardware. Also connect the Molex connector (orange and gray wires) to the main power harness.
- NOTE: Use the supplied roll of 3/8" foam tape (the thicker of the two 3/8" rolls) if you need to replace the gasket on the inside of the front bezel. Be sure to remove all of the existing foam tape and adhesive first.**
14. After replacing the front bezel, install the hood on the chassis, connecting the fan power connector, monitor control board, ground strap, and plastic drain tube. See Figure 4 for locations. Pull the hood towards you until the spring-loaded levers lock into place.
  15. Close and lock the hood.
  16. Plug in and turn on the game.
  17. When the game is finished booting, calibrate the touchscreen. Then, ensure that the screen is properly aligned, and make any necessary adjustments with the monitor control board.
  18. Replace and lock the coin box or coin box/bill acceptor assembly.

## FORCE ELITE GAMES

### *Touchscreen Removal*

1. Turn off and unplug the game.
2. Unlock and open the rear door.
3. Disconnect the monitor power connection (black and yellow wires) running to the power supply.
4. Disconnect the monitor signal cable from the motherboard and remove it from the cable clamps.
5. Inside the game, access the latches for each side panel and remove both panels (see Figure 6).
6. Remove the 2 nuts and washers securing the touchscreen controller to the game and remove the controller from the mounting screws. Then disconnect the cable from the back of the controller and disconnect the Molex connector (orange and gray wires) running from the touchscreen controller cable to the main power harness.
7. Remove the 3 screws at the top of each side piece fastening the top cover to the game (see Figure 7) and remove the top cover.
8. Loosen the 5/16" nuts securing the 2 LCD clips (one on each side piece). See Figure 7.
9. Lift the bezel and monitor assembly from the game.
10. Remove the 3 screws on top of the front bezel (see Figure 7) and separate the bezel from the monitor.
11. Use dental floss to carefully cut the foam tape holding the touchscreen to the monitor until you are able to completely remove the touchscreen.
12. Remove any remaining adhesive residue with denatured alcohol, then clean the monitor glass with the supplied alcohol wipe.

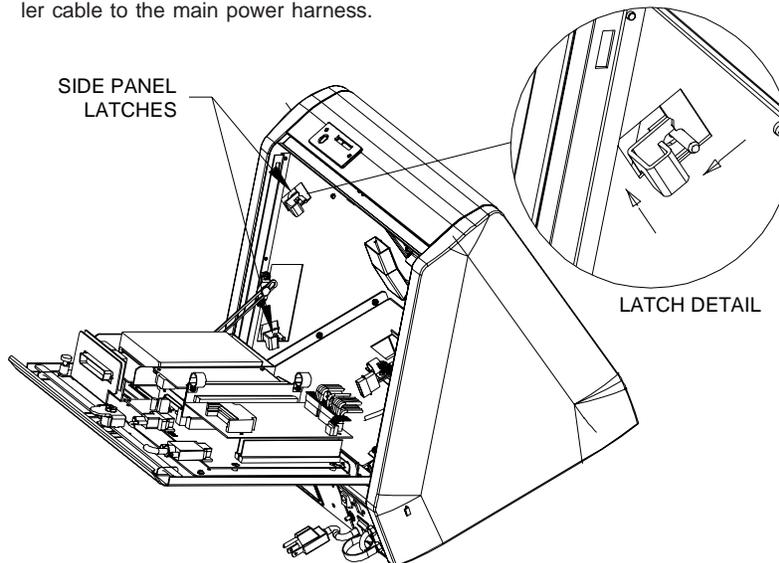


FIGURE 6 - FORCE ELITE - SIDE PANEL LATCH ACCESS

### ***Touchscreen Installation***

13. Clean the reverse side of the replacement touchscreen with the supplied alcohol wipe.
14. Cut pieces of the supplied 1/2" double-sided foam tape long enough to cover each edge of the screen without overlapping. After the tape is in place on the screen, peel off the backing.
15. Replace the new touchscreen over the monitor (with the cable on the left if you are facing the game), making sure the screen is properly and evenly aligned over the monitor glass. Then clean the front of the screen with the supplied alcohol wipe.
16. Reattach the front bezel to the monitor with the 3 screws removed earlier. See Figure 7.
17. Replace the monitor assembly, aligning it with the support brackets inside the game and making sure the LCD clips fit properly into the slots at the top of each side.
18. Tighten the nuts securing the 2 LCD clips. See Figure 7.
19. Replace the top cover.
20. Replace the 3 screws at the top of each side piece. The shorter screw will go in the screw hole closest to the rear of the game. See Figure 7.
21. Connect the new touchscreen controller cable in the back of the controller and secure the controller on the mounting screws in the game with the existing hardware. Also connect the Molex connector (orange and gray wires) to the main power harness.
22. Replace both side panels.
23. Reconnect the monitor power connector to the power supply.
24. Route the monitor signal connector through the cable clamps and reconnect it to the motherboard.
25. Plug in and turn on the game.
26. When the game is finished booting, calibrate the touchscreen. Then, ensure that the screen is properly aligned, and make any necessary adjustments with the monitor control board.
27. Close and lock the rear door.

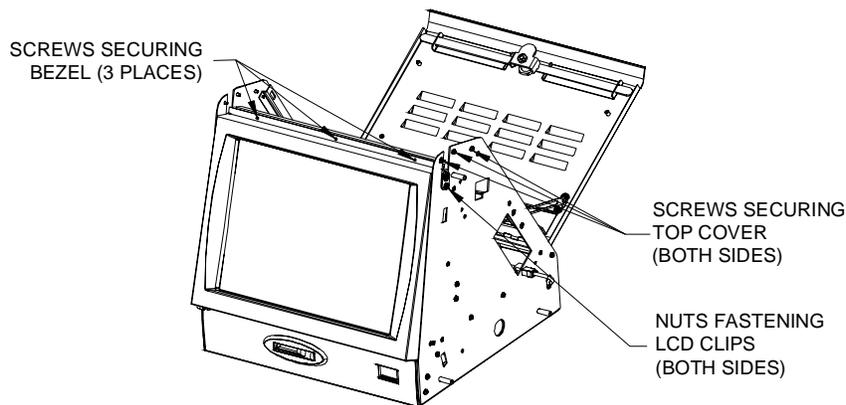


FIGURE 7 - FORCE ELITE - FRONT BEZEL REMOVAL

## FORCE VIBE GAMES

### *Touchscreen Removal*

1. Turn off and unplug the game.
2. Unlock and open the CPU section.
3. **Games with bill acceptors only:** Remove the clamp fastening the bill acceptor sensor cable to the VGA monitor cable. Then disconnect the 12-pin power connector from the side of the bill acceptor and remove the 4 screws and washers securing the bill acceptor to the CPU. You will then be able to remove the bill acceptor.
4. Disconnect the VGA monitor cable connector and the screw fastening the cable to the monitor mounting plate, and also disconnect the ground screw. Then disconnect the monitor power connector. See Figure 8.
5. Remove the 2 thumbnuts securing the touchscreen controller to the game and remove the controller from the mounting screws. Then disconnect the cable from the back of the controller and disconnect the Molex connector (orange and gray wires) running from the touchscreen controller cable to the main power harness. Also disconnect the ground screw. See Figure 8.
6. Using Figure 8, remove the 10 screws fastening the monitor to the bezel (2 screws also fasten strain relief cords on either side of the CPU) and carefully pull the monitor assembly away from the bezel until you're able to access the touchscreen.
7. Note the orientation of the touchscreen cable before removing the screen. Then use dental floss to carefully cut the foam tape holding the touchscreen to the monitor until you are able to completely remove the screen. Note the manner in which the 2 layers of foam tape are placed on the front edge of the screen.

**NOTE: Keep track of all hardware removed in the touchscreen replacement process.**

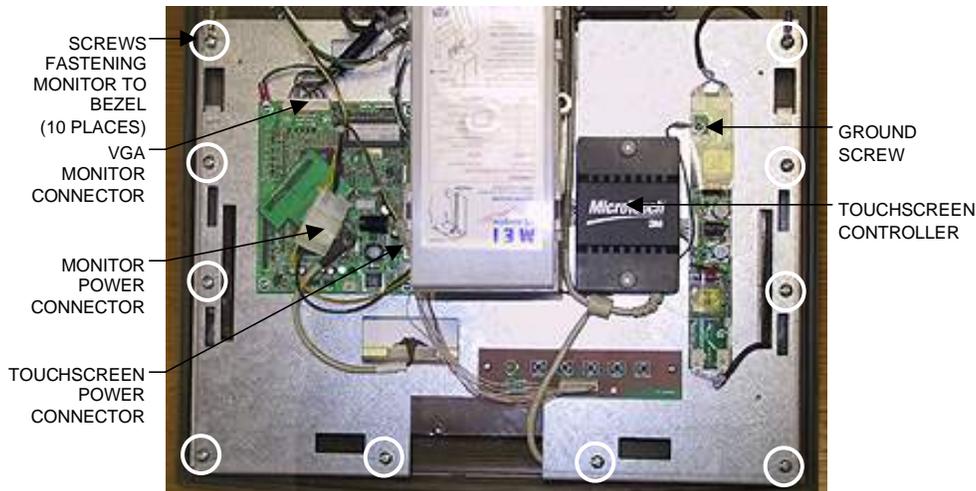


FIGURE 8 - FORCE VIBE - MONITOR REMOVAL

8. Remove any remaining adhesive residue with denatured alcohol, then clean the monitor glass with the supplied alcohol wipe.

### ***Touchscreen Installation***

9. Clean the reverse side of the replacement touchscreen with the supplied alcohol wipe.
10. If there is no tape already on the touchscreen, cut pieces of the supplied 1/2" double-sided foam tape long enough to cover each edge of the screen without overlapping. After the tape is in place on the screen, peel off the backing.
11. Replace the new touchscreen over the monitor in the same manner as the old screen, making sure the screen is properly and evenly aligned over the monitor glass. Then clean the front of the screen with the supplied alcohol wipe.
12. Using the original touchscreen for reference, cut pieces of the supplied 1/2" single-sided foam tape long enough to cover each edge of the front of the screen without overlapping, then place the tape on the screen. After the tape is in place, repeat this step so there are two layers of tape on the screen.
13. Connect the new touchscreen controller cable in the back of the controller and secure the controller on the mounting screws in the game with the existing hardware. Also connect the Molex connector (orange and gray wires) to the main power harness.
14. Replace the monitor assembly in the bezel, lining up the screw holes in the monitor with the holes in the bezel, then replace the 10 screws. See Figure 8.
15. Reconnect the VGA monitor cable connector and the screw fastening the cable to the monitor mounting plate, and also reconnect the ground screw. Then reconnect the monitor power connector. See Figure 8.
16. **Games with bill acceptors only:** Replace the bill acceptor in the CPU section (make sure the touchscreen controller cables do not interfere) and fasten it with the 4 screws and washers. Then reconnect the 12-pin bill acceptor power connector. It is also recommended you use a cable clamp to refasten the bill acceptor sensor and VGA monitor cables.
17. Plug in and turn on the game.
18. When the game is finished booting, calibrate the touchscreen. Then, ensure that the screen is properly aligned, and make any necessary adjustments with the monitor control board.
19. Close and lock the CPU section.

## **FORCE FUSION/ FUN ZONE GAMES**

Use Figures 9 and 10 to determine your type of game, then follow the appropriate instructions to remove and install the touchscreen.

### **Fusion with electronics box/ Fun Zone**

#### ***Touchscreen Removal***

1. Turn off and unplug the game.
2. Unlock and open the bezel.
3. Remove the 6 thumbnuts fastening the bezel to the game (see Figure 11) and remove the bezel.
4. Remove the cable clamps securing the touchscreen cable and the touchscreen power harness, then remove the screws fastening the touchscreen controller (see Figure 11) to the game and disconnect the cable from the back of the controller. Locate and disconnect the Molex connector (orange and gray wires) running from the touchscreen controller cable to the main power harness, and also disconnect the ground screw.
5. Use dental floss to carefully cut the foam tape holding the touchscreen to the monitor until you are able to completely remove the screen. Once the touchscreen is completely free from the monitor, remove any residual foam tape from the monitor with denatured alcohol.

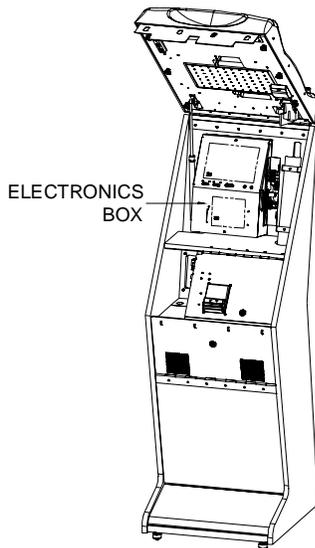


FIGURE 9 - FUSION WITH  
ELECTRONICS BOX/FUN ZONE

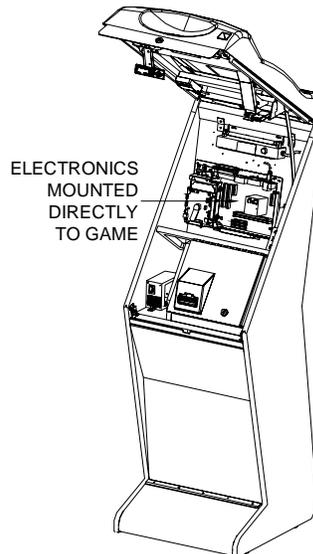


FIGURE 10 - FUSION WITHOUT  
ELECTRONICS BOX

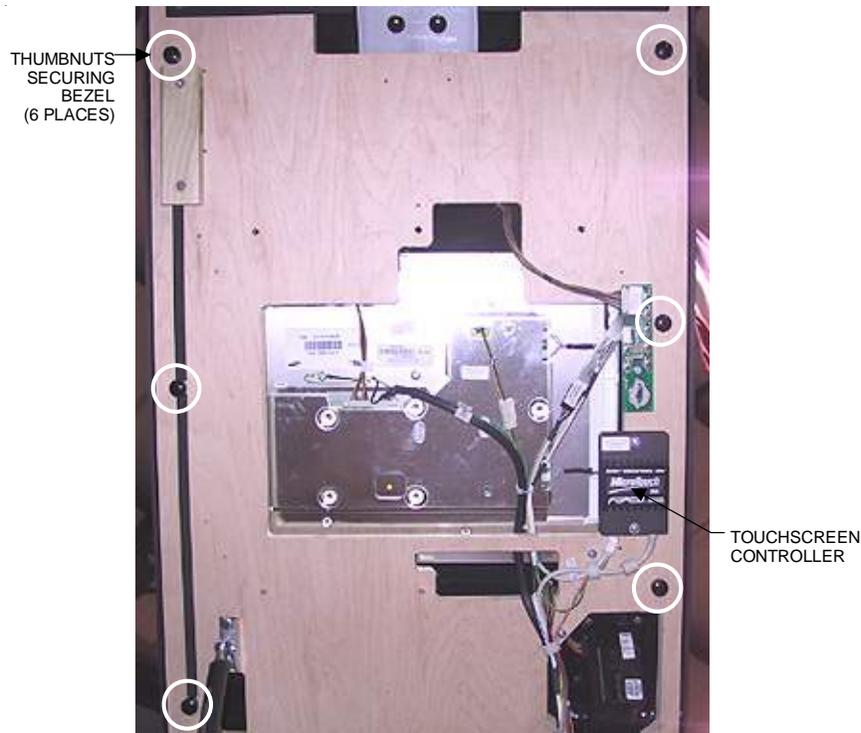


FIGURE 11 - UNDERSIDE OF BEZEL

### ***Touchscreen Installation***

6. Clean the glass on the reverse side of the new touchscreen with the supplied alcohol wipe, then cut pieces of the supplied 1/2" foam tape long enough to cover each edge of the monitor without overlapping. After the tape is in place on the monitor, peel off the backing. Carefully place the touchscreen over the monitor in the same manner it was attached to the old monitor, making sure the screen is properly and evenly aligned over the glass. Clean the front of the touchscreen with the supplied alcohol wipe once it is in place.
7. Connect the touchscreen cable in the back of the controller (see Figure 11) and secure the controller with the existing hardware. Also connect the Molex connector (orange and gray wires) to the main power harness (after routing the wires through the cable clamps) and attach the ground screw.
8. Reinstall the bezel on the game and fasten it with the 6 thumbnuts.
9. Plug in and turn on the game.
10. When the game is finished booting, calibrate the touchscreen. Then, ensure that the screen is properly aligned, and make any necessary adjustments with the monitor control board.
11. Close and lock the bezel, then calibrate the touchscreen.

## Fusion without electronics box

### Touchscreen Removal

1. Turn off and unplug the game.
2. Unlock and open the bezel.
3. Disconnect the VGA monitor connector and ground screw, the monitor control board connector, and the monitor power connector and also remove the cables from the 2 clamps attached to the monitor. See Figure 12.
4. Remove the screws fastening the touchscreen controller to the game and disconnect the cable from the back of the controller. Then locate and disconnect the Molex connector (orange and gray wires) running from the touchscreen controller cable to the main power harness. After disconnecting the ground screw, pull the cables out of the clamps. See Figures 12 and 13.
5. Remove the 10 screws securing the plastic bezel to the wooden frame (see Figure 12) and carefully remove the bezel from the game. Be careful not to damage the bezel with the coin cup during removal.

**NOTE: Keep track of all hardware removed in the touchscreen replacement process.**

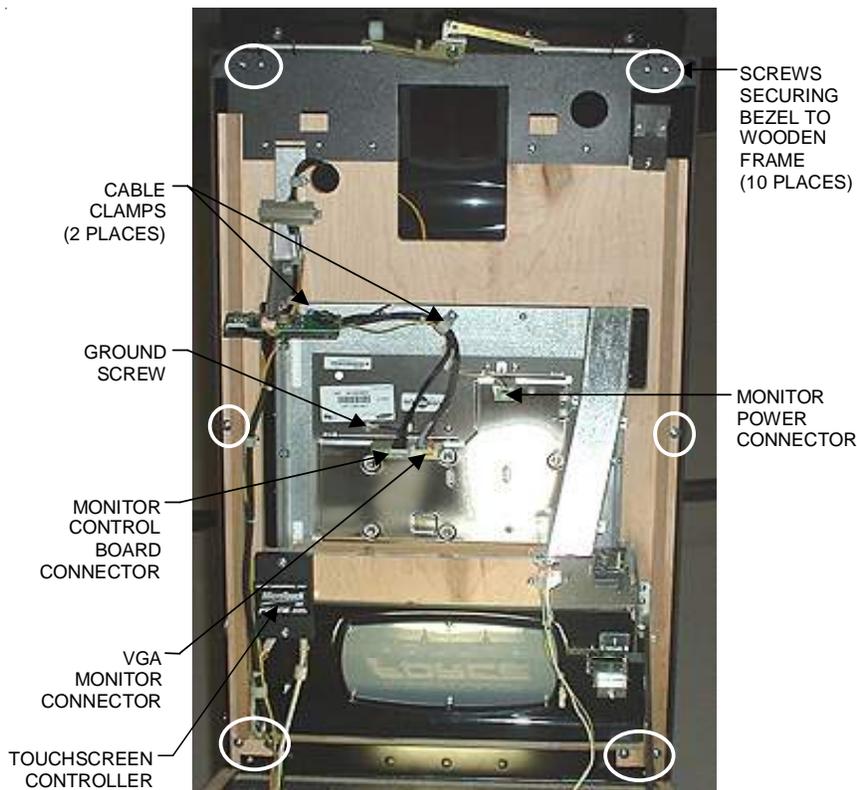


FIGURE 12 - FORCE FUSION - UNDERSIDE OF BEZEL

6. Place the bezel assembly upside-down on a flat surface and remove the 10 screws fastening the LCD monitor to the bezel (remember which 2 screws also fasten cable clamps), then remove the monitor from the bezel. See Figure 14.
7. Note the orientation of the touchscreen cable before removing the screen. Then use dental floss to carefully cut the foam tape holding the touchscreen to the monitor until you are able to completely remove the screen. Once the touchscreen is completely free from the monitor, remove any residual foam tape from the monitor with denatured alcohol.

**NOTE: Be sure not to scratch the glass when setting the monitor aside.**

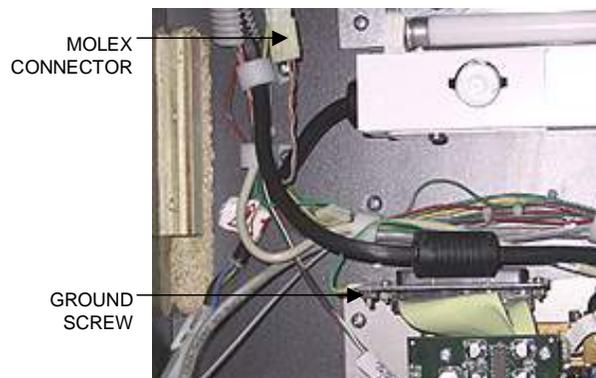


FIGURE 13 - FORCE FUSION - CLOSEUP OF CPU SECTION

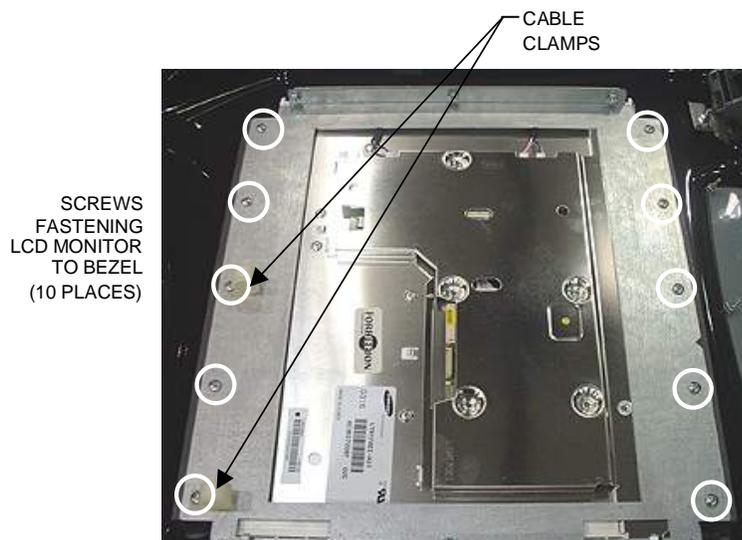


FIGURE 14 - FORCE FUSION - UNDER SIDE OF MONITOR

### ***Touchscreen Installation***

8. Clean the glass on the reverse side of the new touchscreen with the supplied alcohol wipe, then cut pieces of the supplied 1/2" foam tape long enough to cover each edge of the monitor without overlapping. After the tape is in place on the monitor, peel off the backing.
9. Carefully place the touchscreen over the monitor in the same manner as the old screen, making sure the screen is properly and evenly aligned over the glass. Then clean the front of the screen with the supplied alcohol wipe.
10. Place the new LCD monitor in the bezel (make sure it is not upside-down), lining up the screw holes on the face of the mounting frame with the larger, drilled holes on the plastic mounting pieces (see Figure 15), and fasten it with the 10 screws. Also replace the cable clamps in the appropriate screw holes (See Figure 14).
11. Carefully replace the plastic bezel assembly in the game, making sure the coin cup protrudes into the lower cutout and no wires are pinched, then secure it to the wooden frame with the 10 screws (see Figure 12).
12. Connect the touchscreen controller cable in the back of the controller and secure the controller in the game with the existing hardware. Then connect the Molex connector (orange and gray wires) to the main power harness and attach the ground screw. Replace the cables in the clamps as before. See Figure 13.
13. Reconnect the VGA monitor connector and ground screw (do not overtighten), the monitor control board connector, and the monitor power connector (see Figure 12) and replace the cables in the 2 clamps attached to the monitor.
14. Plug in and turn on the game.
15. When the game is finished booting, calibrate the touchscreen. Then, ensure that the screen is properly aligned, and make any necessary adjustments with the monitor control board.
16. Close and lock the bezel, then calibrate the touchscreen.



FIGURE 15 - FORCE FUSION - PLASTIC MOUNTING PIECES ON BEZEL

## FORCE UPRIGHT (NON-FUSION) GAMES

### *Touchscreen Removal*

1. Turn off and unplug the game.
2. **Upright with coin door:** Remove the bezel by removing the 2 wing nuts inside the CPU door along the bottom of the bezel and the 3 wing nuts inside the game along the top piece (after removing the rear door). Then disconnect the 2 speaker connectors inside the game on either side of the marquee before lifting the bezel from the game.  
**Upright without coin door:** Unlock and open the front bezel (see Figure 16).
3. Remove the black poly tape (see Figure 16) from around the edges of the old touchscreen, keeping the manner in which the tape was placed around the screen in mind.
4. Remove the 2 nuts and washers securing the touchscreen controller to the game and remove the controller from the mounting screws. Then disconnect the cable from the back of the controller and disconnect the Molex connector (orange and gray wires) running from the touchscreen controller cable to the main power harness.
5. Use dental floss to carefully cut the foam tape holding the touchscreen to the picture tube until you are able to completely remove the touchscreen.
6. Remove any remaining adhesive residue with denatured alcohol, then wipe the surface of the picture tube with the supplied alcohol wipe.

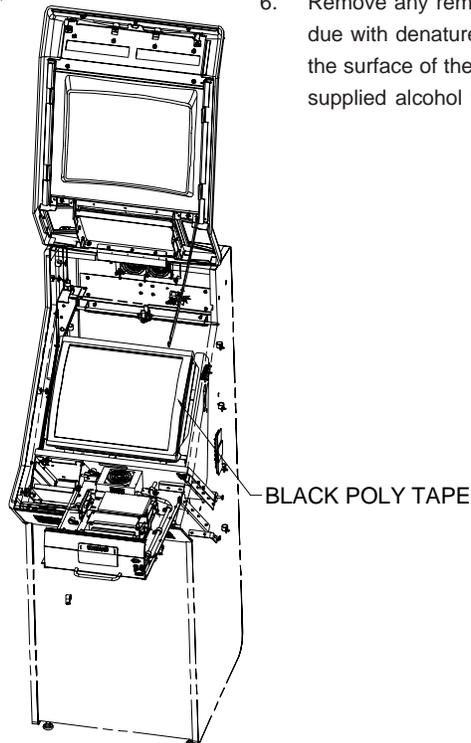


FIGURE 16 - FORCE UPRIGHT (NON-FUSION) TOUCHSCREEN ACCESS

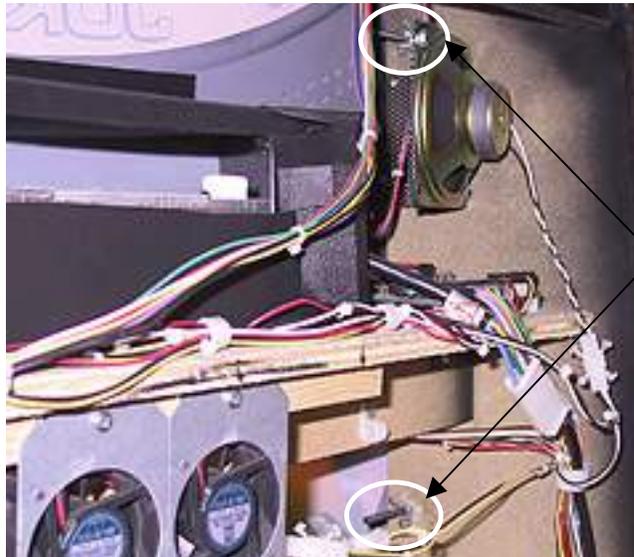
***Touchscreen Installation***

7. Clean the reverse side of the replacement touchscreen with the supplied alcohol wipe.
8. Peel the backing from the 8 pieces of double-sided foam tape already adhered to the reverse side of the touchscreen.
9. Replace the new touchscreen over the picture tube (with the cable on the right if you are facing the game), making sure the screen is properly and evenly aligned over the picture tube. Then clean the front of the screen with the supplied alcohol wipe.
10. Connect the new touchscreen controller cable in the back of the controller and secure the controller on the mounting screws in the game with the existing hardware. Also connect the Molex connector (orange and gray wires) to the main power harness.
11. Remembering the manner in which the tape was placed around the touchscreen you removed, place and cut a length of the supplied black poly tape evenly over an entire edge of the touchscreen and repeat until all 4 edges are covered.
12. Place and cut a longer length of black poly tape around all 4 edges of the screen.
13. Plug in and turn on the game.
14. When the game is finished booting, calibrate the touchscreen. Then, ensure that the screen is properly aligned, and make any necessary adjustments with the monitor control board.
15. Close and lock the front bezel. For upright games with coin doors, replace

the bezel and secure it with the 5 wing nuts removed earlier. Also reconnect the 2 speaker connectors, then replace the rear door.

**MEGATOUCH COMBO JUKEBOX*****Touchscreen Removal***

1. Turn off and unplug the game.
2. Unlock and remove the rear door and turn off the internal power switch (located above the cooling fan on the left side).
3. Using Figures 17 and 18, remove the 6 bolts and wing nuts (3 per side) fastening the front bezel to the cabinet and remove the bezel.
4. Using Figure 19, locate the touchscreen controller mounted inside the cabinet on the right side (if you are facing the rear of the game) and remove the two screws fastening the controller to the cabinet. Then disconnect the Molex connector (orange and gray wires) running from the touchscreen controller cable to the main power harness.
5. Remove the black poly tape from around the edges of the old touchscreen (see Figure 20). Remember how the tape was placed in order to tape the new touchscreen.
6. Use dental floss to carefully cut the foam tape holding the touchscreen to the picture tube until you are able to completely remove the touchscreen.
7. Remove any remaining adhesive residue with denatured alcohol, then wipe the surface of the picture tube with the supplied alcohol wipe.



BOLTS AND WING NUTS FASTENING FRONT BEZEL TO CABINET (BOTH SIDES)

FIGURE 17 - MEGATOUGH COMBO JUKEBOX - INSIDE REAR OF CABINET



BOLTS AND WING NUTS FASTENING FRONT BEZEL TO CABINET (BOTH SIDES)

DUAL FAN ASSEMBLY

FIGURE 18 - MEGATOUGH COMBO JUKEBOX - INSIDE REAR OF CABINET



TOUCHSCREEN CONTROLLER

ETHERNET HUB

FIGURE 19 - MEGATOUGH COMBO JUKEBOX - INSIDE REAR OF CABINET

### ***Touchscreen Replacement***

8. Clean the reverse side of the replacement touchscreen with the supplied alcohol wipe.
9. If there is no tape already on the touchscreen, cut pieces of the supplied 1/2" foam tape long enough to cover each edge of the screen without overlapping. After the tape is in place on the screen, peel off the backing.
10. Replace the new touchscreen over the monitor (with the cable on the left if you are facing the game), making sure the screen is properly and evenly aligned over the picture tube. Then clean the front of the screen with the supplied alcohol wipe.
11. Remembering the manner in which the tape was placed around the touchscreen you removed, place and cut a length of the supplied black poly tape evenly over an entire edge of the touchscreen and repeat until all 4 edges are covered.
12. Place and cut a longer length of black poly tape around all 4 edges of the screen.
13. Connect the new touchscreen controller cable in the back of the controller and secure the controller with the existing hardware. Also connect the Molex connector (orange and gray wires) to the main power harness.
14. Carefully replace the front bezel, lining up the holes in the bezel with the screw holes on the game. Then replace the 6 bolts and wing nuts (3 per side) fastening the bezel to the game. Refer to figures 17 and 18.
15. Plug in and turn on the game.
16. When the game is finished booting, calibrate the touchscreen. Then, ensure that the screen is properly aligned, and make any necessary adjustments with the monitor control board.
17. Replace and lock the rear door.

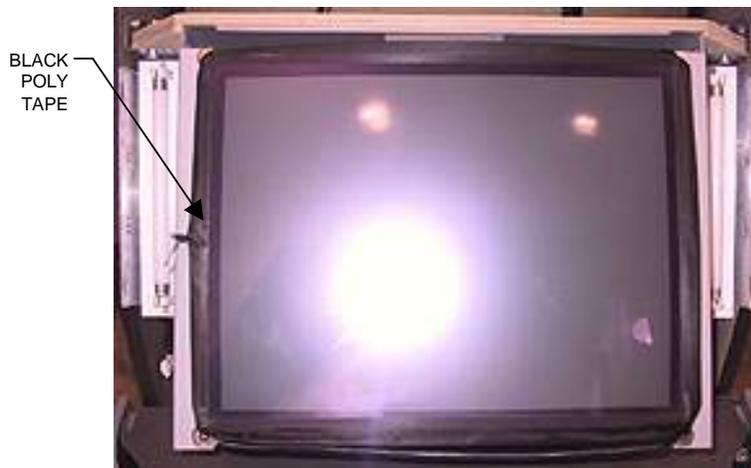


FIGURE 20 - MEGATOUCH COMBO JUKEBOX - MONITOR AND TOUCHSCREEN

## MR. VIPS GAMES

### *Touchscreen Removal*

1. Turn off and unplug the game.
2. Unlock and remove the upper rear door.
3. To remove the large prize assembly, first remove the 2 nuts and bolts fastening the cap and unplug the fluorescent light assembly, then remove the remaining 8 nuts and bolts fastening the prize assembly to the game. The cap and prize assembly can be removed together. See Figure 21.

4. To proceed with touchscreen removal, first determine the type of hardware securing the shroud to your game. See Figures 22 and 23.

#### **Games with screws securing front of shroud:**

- To remove the front bezel from the shroud, remove the 4 screws on the underside of the bezel (see Figure 22), then remove the 4 screws (2 per side) on either side of the front bezel (see Figure 24). The bezel can then be removed.



FIGURE 21 - SIDE/REAR VIEW OF GAME

**Games with bolts securing front of shroud:**

- Remove the cable clamp fastening the small prize assembly light wiring to the monitor frame. See Figure 25.
- From inside the game, access and remove the 4 screws (2 per side) fastening the sides of the shroud to the game. See Figure 26.
- Remove the bolts and nuts (there may be as many as 6) securing the monitor to the game (see Figures 27-29 for possible locations). Then carefully pull the monitor towards you until you have enough room to access the 4 nuts securing the bolts holding the front of the shroud to the game. Remove the nuts and bolts, then carefully remove the shroud and small prize assembly from the game.

5. Remove the black poly tape (see Figure 30) from around the edges of the old touchscreen, keeping the manner in which the tape was placed around the screen in mind.
6. Remove the two nuts and washers securing the touchscreen controller to the inside of the monitor (see Figure 31) and remove the controller from the mounting screws. Then disconnect the cable from the back of the controller and disconnect the Molex connector (orange and gray wires) running from the touchscreen controller cable to the main power harness.
7. Use dental floss to carefully cut the foam tape holding the touchscreen to the picture tube until you are able to completely remove the touchscreen.
8. Remove any remaining adhesive residue with denatured alcohol, then wipe the surface of the picture tube with the supplied alcohol wipe.



FIGURE 22 - FRONT OF SHROUD FASTENED WITH SCREWS



FIGURE 23 - FRONT OF SHROUD FASTENED WITH BOLTS

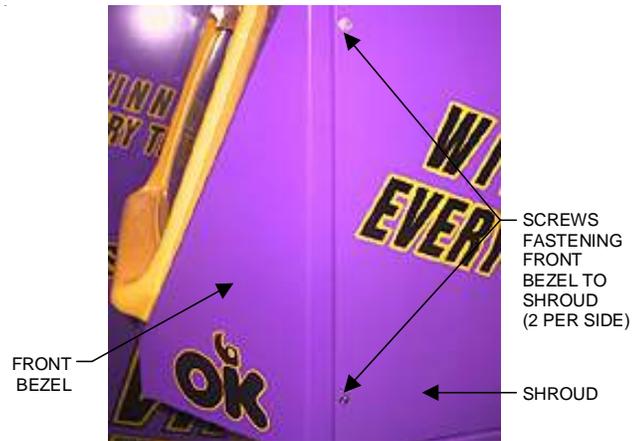


FIGURE 24 - SIDE/FRONT OF GAME



FIGURE 25 - REAR OF MONITOR

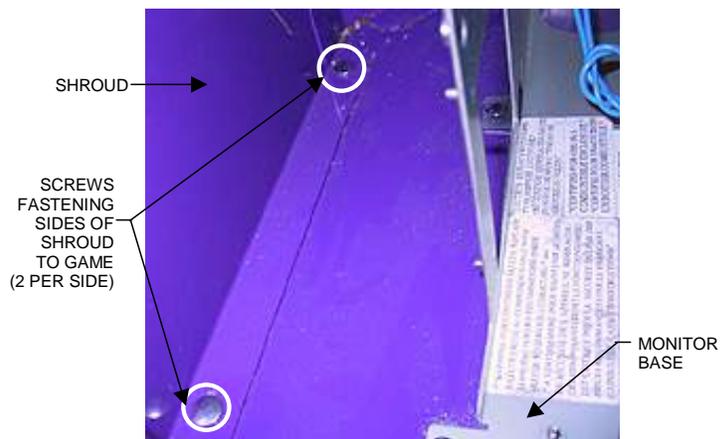


FIGURE 26 - INSIDE OF SHROUD



FIGURE 27 - POSSIBLE HARDWARE LOCATION FOR MOUNTING MONITOR

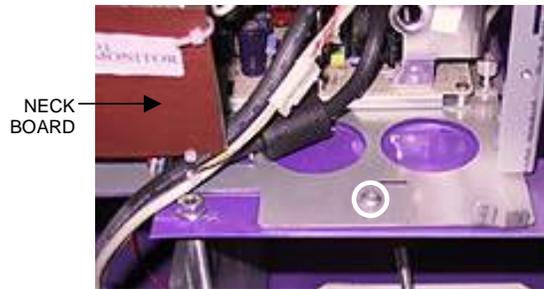


FIGURE 28 - POSSIBLE HARDWARE LOCATION FOR MOUNTING MONITOR



FIGURE 29 - POSSIBLE HARDWARE LOCATION FOR MOUNTING MONITOR

### ***Touchscreen Installation***

9. Clean the reverse side of the replacement touchscreen with the supplied alcohol wipe.
10. Peel the backing from the 8 pieces of double-sided foam tape already adhered to the reverse side of the touchscreen.
11. Replace the new touchscreen over the picture tube (with the cable on the right if you are facing the game), making sure the screen is properly and evenly aligned over the picture tube. Then clean the front of the screen with the supplied alcohol wipe.
12. Connect the new touchscreen controller cable in the back of the controller and secure the controller on the mounting screws in the game with the existing hardware (see Figure 31). Also connect the Molex connector (orange and gray wires) to the main power harness.
13. Remembering the manner in which the tape was placed around the touchscreen you removed, place and cut a length of the supplied black poly tape evenly over an entire edge of the touchscreen and repeat until all 4 edges are covered.

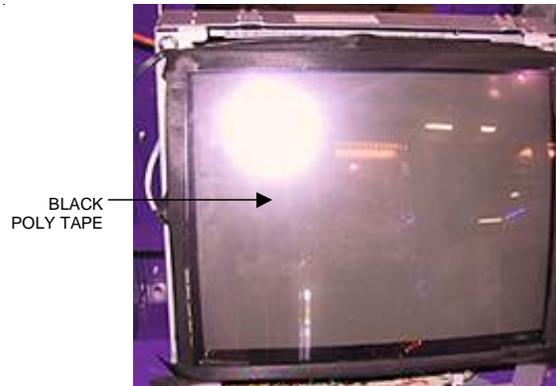


FIGURE 30 - MONITOR AND TOUCHSCREEN



FIGURE 31 - TOUCHSCREEN CONTROLLER

14. Place and cut a longer length of black poly tape around all 4 edges of the screen.
15. **Games with screws securing front of shroud:**
  - Replace the bezel in the shroud and secure it with the 8 screws. See Figures 22 and 24.**Games with bolts securing front of shroud:**
  - Replace the shroud and small prize assembly, then secure the front of the shroud with the 4 nuts and bolts removed earlier.
  - Slide the monitor back into position and secure it with the hardware removed earlier (see Figures 27-29 for hardware locations).
  - Replace the 4 screws (2 per side) fastening the sides of the shroud to the game. See Figure 23.
  - Replace the cable clamp fastening the small prize assembly light wiring to the monitor frame. See Figure 25.
16. Replace the cap and large prize assembly, then replace the 8 nuts and bolts fastening the prize assembly to the game. Then replace the 2 nuts and bolts fastening the cap to the game and plug in the fluorescent light. See Figure 21.
17. Replace and lock the upper rear door.
18. Plug in and turn on the game.
19. When the game is finished booting, calibrate the touchscreen. Then, ensure that the screen is properly aligned, and make any necessary adjustments with the monitor control board.

## ION EVO, EVO WALLETTE, MEGATOUCH ENTERTAINER AND ELITE EDGE GAMES

### *Touchscreen Removal*

1. Turn off and unplug the game.
2. Unlock and open the CPU section and place something under the front bezel to brace it when the strain relief cord is disconnected.
3. Remove the screw and washer fastening the strain relief cord, then remove the remaining 5 screws fastening the LCD mounting bracket to the game. The key socket ground wire will also be removed in the process. See Figure 32.
4. Remove the nut, wire and bolt from the key socket assembly located on LCD mounting bracket, then remove the bracket. See Figure 32.
5. Carefully cut the tie wraps around the VGA monitor cable, remove the ground wire and disconnect the cable from the monitor. See Figure 32.
6. Remove the OSD cable from the twist clamp and disconnect it from the OSD board and the monitor. Then remove the OSD board from the Velcro attached to the hinge and set it aside. See Figure 32.

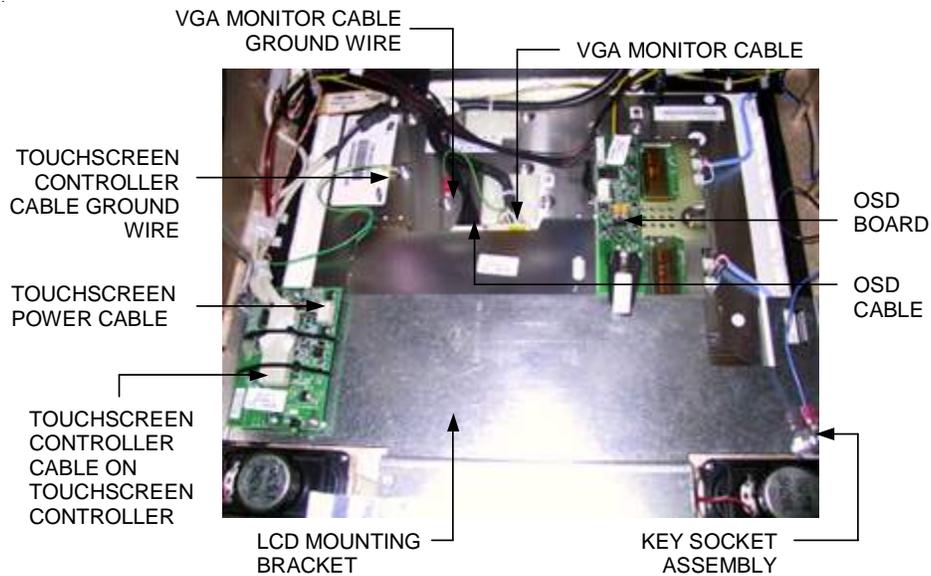


FIGURE 32 - CLOSEUP OF CPU SECTION

7. Disconnect the LCD power connector (black and yellow wires). See Figure 33.
  8. Carefully cut the tie wrap around the touchscreen controller cable and disconnect the cable from the touchscreen controller. Also remove the ground wire. See Figure 32.
  9. Disconnect the touchscreen power cable from the touchscreen controller (see Figure 32), then disconnect the Molex connector identified by the orange and gray wires.
  10. Loosen the 3 screws on the monitor side of the hinges in order to raise the hinges and allow room to remove the monitor. See Figure 33.
11. Slide the monitor out of the bezel.
  12. Note the orientation of the touchscreen cable before removing the screen. Then use dental floss to carefully cut the foam tape holding the touchscreen to the monitor until you are able to completely remove the screen.
  13. Remove any remaining adhesive residue with denatured alcohol, then clean the monitor glass with the supplied alcohol wipe.

**NOTE:** Elite Edge games may require you to remove the joystick in order to allow the necessary room for loosening of the hinge screws. To remove the joystick, carefully place the game on its side. Remove the 2 screws

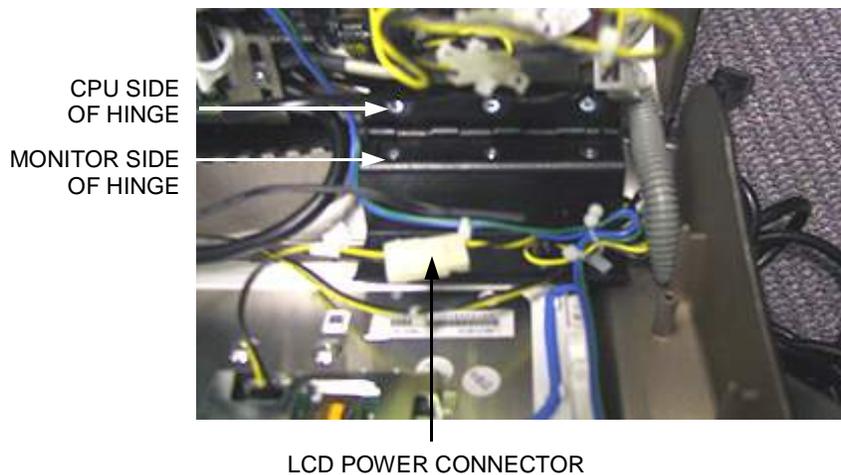


FIGURE 33 - CLOSE-UP OF MONITOR HINGE

### ***Touchscreen Installation***

14. Clean the reverse side of the replacement touchscreen with the supplied alcohol wipe.
15. Cut pieces of the supplied 1/2" double-sided foam tape long enough to cover each edge of the screen without overlapping. After the tape is in place on the screen, peel off the backing.
16. Replace the new touchscreen over the monitor in the same manner as the old screen, making sure the screen is properly and evenly aligned over the monitor glass. Then clean the front of the screen with the supplied alcohol wipe.
17. Carefully slide the new monitor into the bezel, making certain that the white edge of the monitor and the monitor wire connections are facing the bottom of the bezel. Ensure that the monitor is properly centered, then tighten the hinge screws. See Figure 33.  
  
**NOTE:** If you removed the joystick on your Elite Edge, carefully return the game to its side and reconnect the joystick to the connector in the game. Place the protective bracket in its previous position, sliding it under the lazy Susan and making sure the cutouts are placed around the installed screws. Make sure all wires are secured inside the bracket, then reinstall the 2 screws securing the bracket. Return the game to its upright position.
18. Replace the LCD mounting bracket in the game and fasten it with the 6 screws removed earlier. Also refasten the strain relief cord and the key socket ground wire. See Figure 32.
19. Replace the key socket assembly by securing the bolt, green wire and nut over the LCD mounting plate. See Figure 32.
20. Connect the touchscreen controller cable to the touchscreen controller and secure it with a tie wrap. Also restore the touchscreen controller cable ground wire. See Figure 32.
21. Connect the touchscreen power cable to the touchscreen controller (see Figure 1) and reconnect the Molex connector (orange and gray wires).
22. Connect the LCD power connector (black and yellow wires). See Figure 33.
23. Reattach the OSD board to the Velcro on the hinge, then connect the OSD cable to both the OSD board and the monitor. See Figure 32. Secure the cable in the twist clamp.
24. Connect the VGA cable to the monitor and secure it with tie wraps. Also replace the ground wire. See Figure 32.
25. Plug in and turn on the game.
26. Once the game has booted up, press the "Calib" button on the OSD board and perform a touchscreen calibration. Then, ensure that the screen is properly aligned, and make any necessary adjustments with the monitor controls on the OSD board.
27. Close and lock the CPU section.

## ION AURORA GAMES

### *Touchscreen Removal*

1. Turn off and unplug the game.
2. Unlock the rear door and open if it is hinged, or remove if it is detachable.
3. Reach under the center of the top of the cover to locate the rotary draw latch (see Figure 34). Turn the wing on the latch counterclockwise to disengage.
4. Unscrew the screw located in the center of the bottom of the cover (see Figure 35). Slowly lift the cover and disconnect the ground wire.
5. Place something in front of the game to brace the bezel once the strain relief cord is undone, then remove the screw at the center of the marquee bezel and the 2 screws on the back of the bezel. For 17" games, remove the security screw inside the CPU section; for 19" games, remove the nut and washer securing the security bolt inside the CPU section. See Figure 36.
6. Open the monitor assembly halfway and remove the screw fastening the strain relief cord. See Figure 37. Open the assembly all the way and rest it on a support.

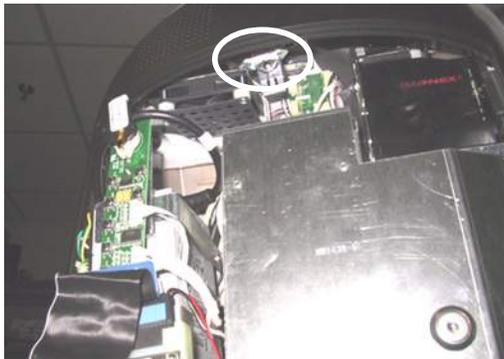


FIGURE 34 - ROTARY DRAW LATCH INSIDE TOP COVER



FIGURE 35 - SCREW IN CENTER OF BOTTOM COVER

7. Disconnect the VGA connector from the monitor. Remove the screw securing the VGA and touchscreen controller ground wires to the monitor (17") or the nut securing the VGA and touchscreen controller ground wires to the ground screw on the back of the monitor (19"). Disconnect the 14-pin OSD cable (white wires) and the LCD power connector (yellow & black wires) from the monitor. See Figure 38 for 17" games, Figure 39 for 19" games.
8. Disconnect the touchscreen power cable from the touchscreen controller, then disconnect the Molex connector, identified by the orange and gray wires. See Figure 38 for 17" games, Figure 39 for 19" games.
9. Release harnesses from clamps; this may include the inverter cable, the inverter power harness, the Molex harness, the touchscreen controller cable, the touchscreen controller cable ground wire, the harness connecting the Molex connector to the power supply, and/or the touchscreen ribbon cable. See Figure 38 for 17" games, Figure 39 for 19" games.
10. *For 19" games:* Remove the inverter from the Velcro securing it to the LCD bracket and carefully place it out of the way of the monitor assembly. See Figure 39.
11. Carefully cut the tie wraps around the touchscreen controller cable and disconnect the cable from the touchscreen controller. Remove the 2 screws securing the touchscreen controller to its mounting plate (17") or the LCD bracket (19"), then remove the controller, as well as the fish paper underneath. See Figure 40.

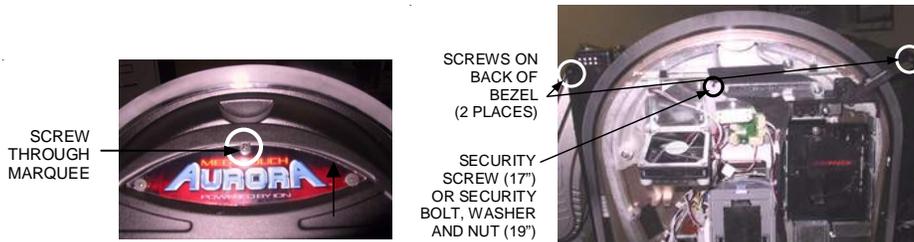


FIGURE 36 - SCREWS ON FRONT AND BACK OF BEZEL

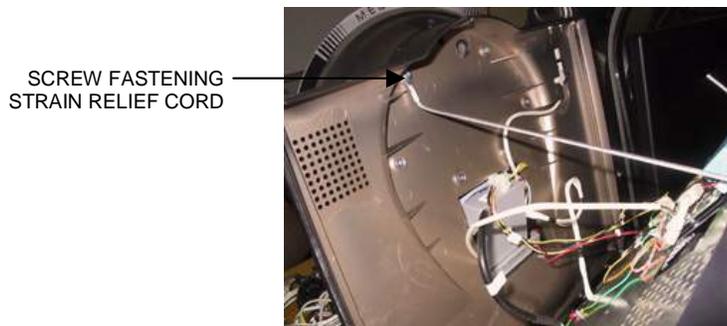
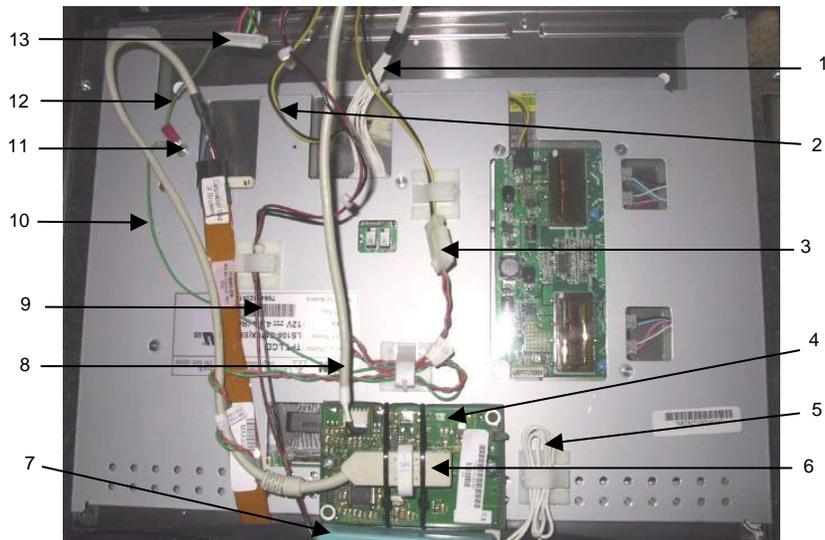


FIGURE 37 - HALFWAY-OPEN MONITOR ASSEMBLY

12. Remove the 4 screws securing either the left and right LCD mounting brackets to the bezel (17") or the LCD bracket to the bezel (19"), then carefully slide the monitor assembly out of the bezel. See Figure 41 for 17" games, Figure 42 for 19" games.
13. *For 17" games:* Remove the 4 screws securing the LCD mounting brackets to the monitor (2 per bracket). If replacing the monitor, remove the fish paper/foam tape strip attached to the top edge of the monitor. See Figure 41.
14. Note the orientation of the touchscreen (i.e. the positioning of the ribbon cable and which side is the front) before removing it from the monitor. Then use dental floss to carefully cut the foam tape holding the screen to the monitor. Once the touchscreen is completely free from the monitor, remove any residual foam tape from the screen with denatured alcohol and clean the glass with the supplied alcohol wipe.



- |                                 |  |
|---------------------------------|--|
| 1. OSD cable                    | 8. Touchscreen power cable                   |
| 2. LCD power connector          | 9. Inverter power harness                    |
| 3. Molex connector              | 10. Touchscreen controller cable ground wire |
| 4. Touchscreen controller       | 11. Ground screw                             |
| 5. Inverter cable               | 12. VGA cable ground wire                    |
| 6. Touchscreen controller cable | 13. VGA monitor cable                        |
| 7. Inverter                     |  |

FIGURE 38 - REAR VIEW OF 17" MONITOR - CONNECTIONS

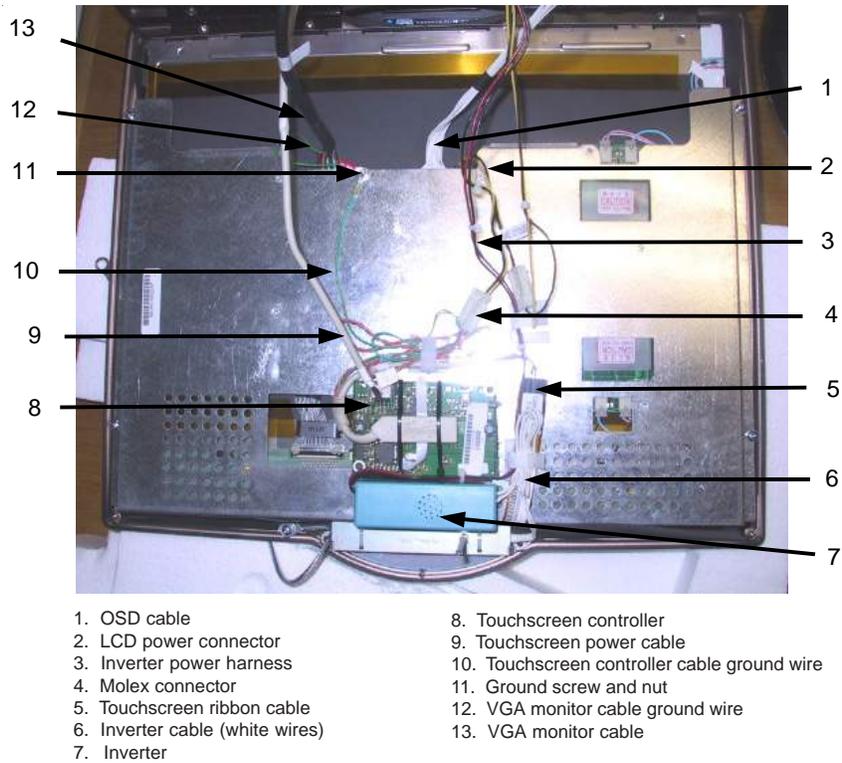


FIGURE 39 - REAR VIEW OF 19" MONITOR - CONNECTIONS

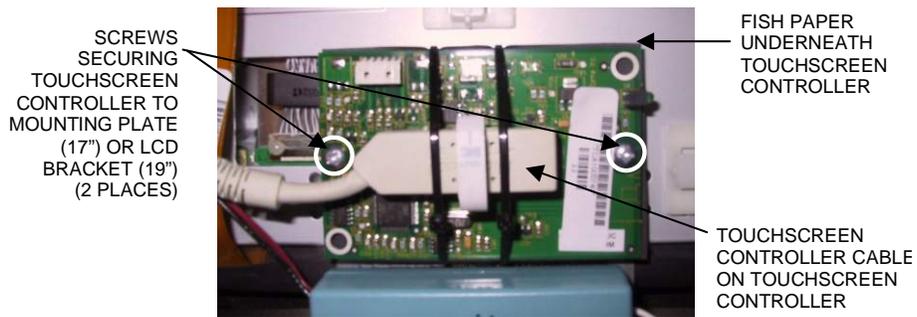


FIGURE 40 - TOUCHSCREEN CONTROLLER

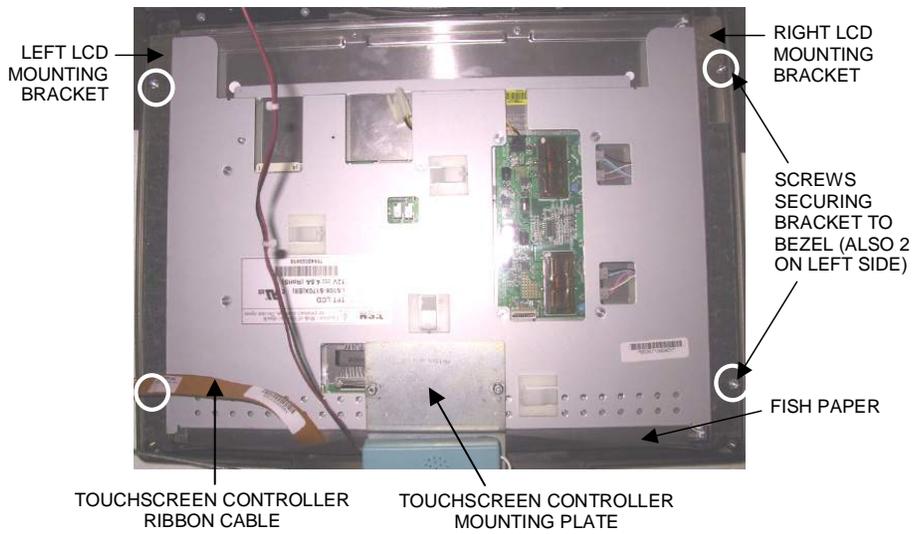


FIGURE 41 - REAR VIEW OF 17" MONITOR - HARDWARE

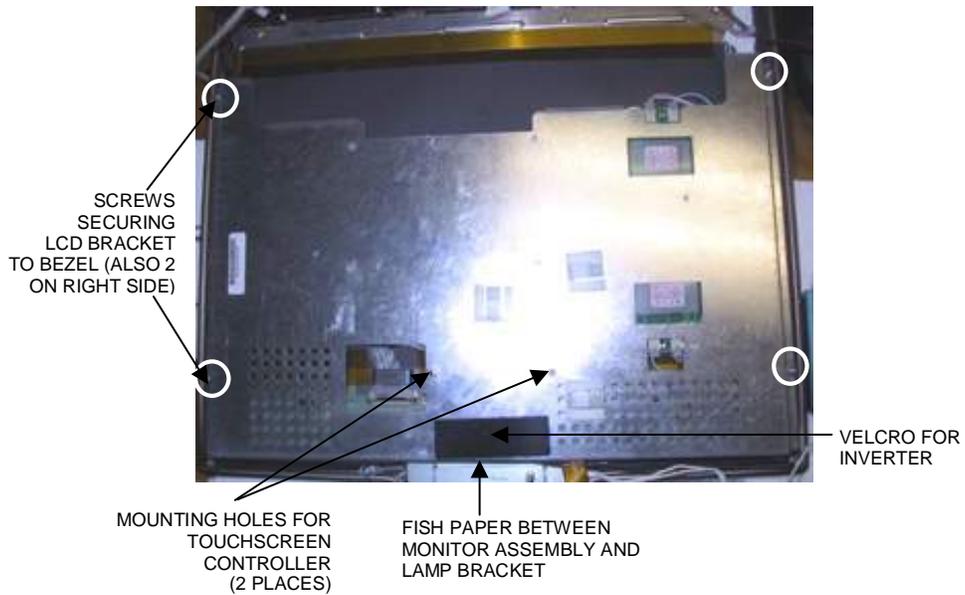


FIGURE 42 - REAR VIEW OF 19" MONITOR - HARDWARE

## ***Touchscreen Installation***

15. Clean the glass on the LCD monitor that you will be using with the supplied alcohol wipe, then cut pieces of the supplied 1/2" foam tape long enough to cover the edges of the monitor without overlapping. After the tape is in place, peel off the backing.

16. *If replacing only the monitor:* Carefully place the touchscreen over the new monitor in the same manner it was attached to the old monitor, making sure that the screen is properly and evenly aligned over the monitor glass. Clean the front of the touchscreen with the supplied alcohol wipe once it is in place. Reattach the fish/paper foam tape strip to the top edge of the monitor (17" games only; see Figure 41).

*If replacing only the touchscreen:* Carefully place the new touchscreen over the monitor in the same manner as the old screen, making sure that the screen is properly and evenly aligned over the monitor glass. Clean the front of the touchscreen with the supplied alcohol wipe once in place.

*If replacing both the monitor and the touchscreen:* Carefully place the new touchscreen over the new monitor in the same manner that the old touchscreen and monitor were attached, making sure that the screen is properly and evenly aligned over the monitor glass. Clean the front of the touchscreen with the supplied alcohol wipe once it is in place. Reattach the fish/paper foam tape strip to the top edge of the monitor/touchscreen assembly (17" games only; see Figure 41).

17. *For 17" games:* Replace the left and right mounting brackets on the monitor and secure each with 2 screws. Carefully slide the new monitor into the bezel, making certain that the edge of the monitor with the fish paper is secured underneath the touchscreen controller's mounting plate. Ensure that the monitor is properly centered, then secure the mounting brackets to the bezel with 4 screws. See Figure 41.

*For 19" games:* Carefully slide the new monitor assembly into the bezel, making sure that the strip of fish paper is secured between the edge of the assembly with the Velcro and the lamp mounting bracket. Ensure that the monitor is properly centered, then secure the LCD bracket to the bezel with 4 screws. See Figure 42.

18. *For 17" games:* Line up the touchscreen controller on the rectangular piece of fish paper. Connect the touchscreen controller cable to the touchscreen controller and secure with 2 tie wraps, making sure that the wraps go around the fish paper as well. Position this touchscreen controller assembly on the mounting plate and secure with 2 screws. See Figure 40.

*For 19" games:* Replace the inverter on the Velcro. Place the rectangular piece of fish paper on the mounting holes on the LCD bracket. Carefully connect the touchscreen controller cable to the touchscreen controller and secure with 2 tie wraps. Position the touchscreen controller on top of the fish paper and secure to the LCD bracket with 2 screws. See Figure 40.

19. Secure the inverter's cable and power harness under clamp(s). See Figures 38 and 39.
20. Reconnect the LCD power connector (black and yellow wires), and secure the wires under a clamp.
21. Reconnect the touchscreen power cable to the touchscreen controller and reconnect the Molex connector (orange and gray wires). Secure the Molex wires and the touchscreen ground wire under a clamp. See Figures 38 and 39.
22. Reconnect the 14-pin OSD connector and the VGA cable to the monitor. For 17" games, replace the touchscreen and VGA ground wires, and secure with 1 screw. See Figure 38. For 19" games, replace the touchscreen and VGA ground wires on the ground screw on the LCD bracket and secure with one nut. See Figure 39.
23. Replace the strain relief cord and secure in place with one screw. See Figure 37.
24. Close the monitor assembly completely, and fasten with 2 screws in the back of the bezel, 1 security screw (17") or security washer and nut (19"), and 1 screw in the front (through the marquee). See Figure 36.
25. Reconnect the ground wire to the rear cover and lower the cover into place, carefully lining up the 2 tabs on the cover with the 2 mating holes on the sides of the game (see Figure 43). Make sure that the plastic lip on the bottom of the rear cover is behind the metal base. Tighten the screw securing the bottom of the door. (Figure 35). Turn the wing on the draw latch clockwise to engage it (see Figure 34).
26. Plug in and turn on the game.
27. Once the game has booted up, press the "Calib" button on the OSD board and perform a touchscreen calibration. Then, ensure that the screen is properly aligned, and make any necessary adjustments with the monitor controls on the OSD board.
28. Close (or reattach) and lock the rear door.

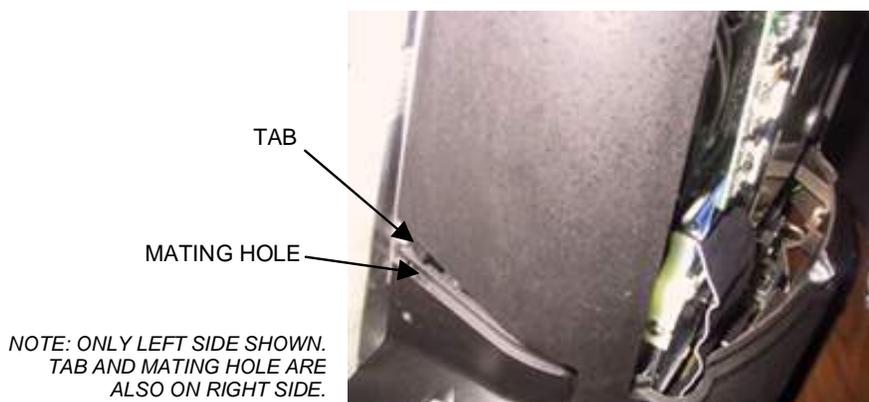


FIGURE 43 - SIDE VIEW OF GAME

## ION FUSION GAMES

### *Touchscreen Removal*

1. Turn off and unplug the game.
2. Unlock and open the bezel.
3. Remove the 6 thumbnuts fastening the bezel to the game. See Figure 44.
4. Loosen the bezel only enough to gain access to the wire connections underneath, then disconnect the button controller wire connection at the foot of the bezel.
5. Proceed to the top of the bezel and remove the key socket wire and ground wire. See Figure 45. Also remove the wire connection to the coin mechanism on the opposite side of the bezel.
6. Remove the bezel.
7. Remove the tie wraps securing the wire harnesses to the back of the monitor. Disconnect the VGA monitor cable connection and ground wire. See Figure 44.
8. Disconnect the LCD connector and remove the OSD cable connection from the monitor. See Figure 44.
9. Remove the tie wrap around the touchscreen controller and disconnect the touchscreen controller cable. Disconnect the Molex connector (orange and gray wires), as well. See Figure 44.
10. Use dental floss to carefully cut the foam tape holding the touchscreen to the monitor until you are able to completely remove the screen. Once the touchscreen is completely free from the monitor, remove any residual foam tape from the monitor with denatured alcohol.

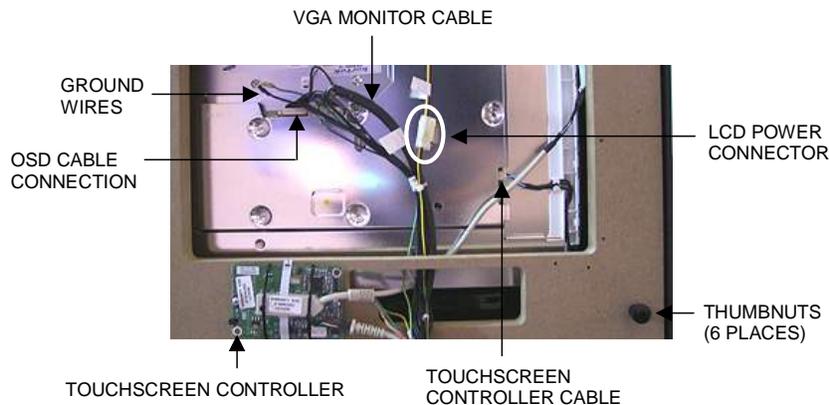


FIGURE 44 - REAR VIEW OF MONITOR / UNDERSIDE OF BEZEL

### ***Touchscreen Installation***

11. Clean the glass on the reverse side of the new or existing touchscreen with the supplied alcohol wipe, then cut pieces of the supplied 1/2" foam tape long enough to cover each edge of the monitor without overlapping. After the tape is in place on the monitor, peel off the backing. Carefully place the touchscreen over the monitor in the same manner it was attached to the old monitor, making sure the screen is properly and evenly aligned over the glass. Clean the front of the touchscreen with the supplied alcohol wipe once it is in place.
12. Lift the bezel to access the reverse side of the monitor. Connect the touchscreen controller cable to the touchscreen controller, then connect the Molex connector (orange and gray wires). See Figure 44.
13. Restore the OSD cable and the VGA monitor cable to the back of the monitor, and reconnect the VGA monitor cable ground wire. See Figure 44.
14. Reconnect the LCD power connector (black and yellow wires). See Figure 44.
15. Return the bezel in place on top of the game, but do not secure it. Reconnect all wire connections attached to the bezel, including the key socket wire, ground wire (see Figure 45), coin mechanism and button controller connections.
16. Secure the bezel completely by fastening the 6 existing thumbnuts. See Figure 44.
17. Plug in and turn on the game.
18. Once the game has booted up, press the "Calib" button on the OSD board and perform a touchscreen calibration. Then, ensure that the screen is properly aligned, and make any necessary adjustments with the monitor controls on the OSD board.
19. Close and lock the bezel, then calibrate the touchscreen.

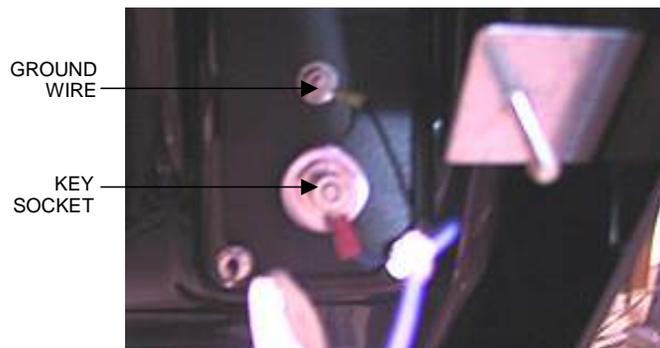


FIGURE 45 - KEY SOCKET AND GROUND







MEGATOUCH FORCE & ION TOUCHSCREEN REPLACEMENT  
PM0331-05