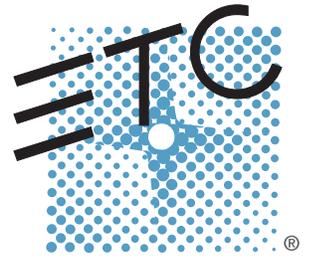
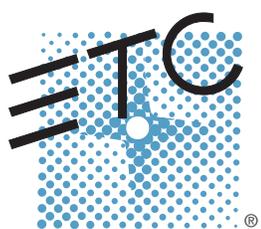


CONGO™ JR



Lighting Control Console
Service Documents

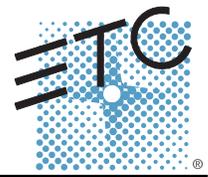
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Part Number: Pending
Released: May 2007



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ETC[®] Service Note

Congo™ jr Face Panel Diagnostics

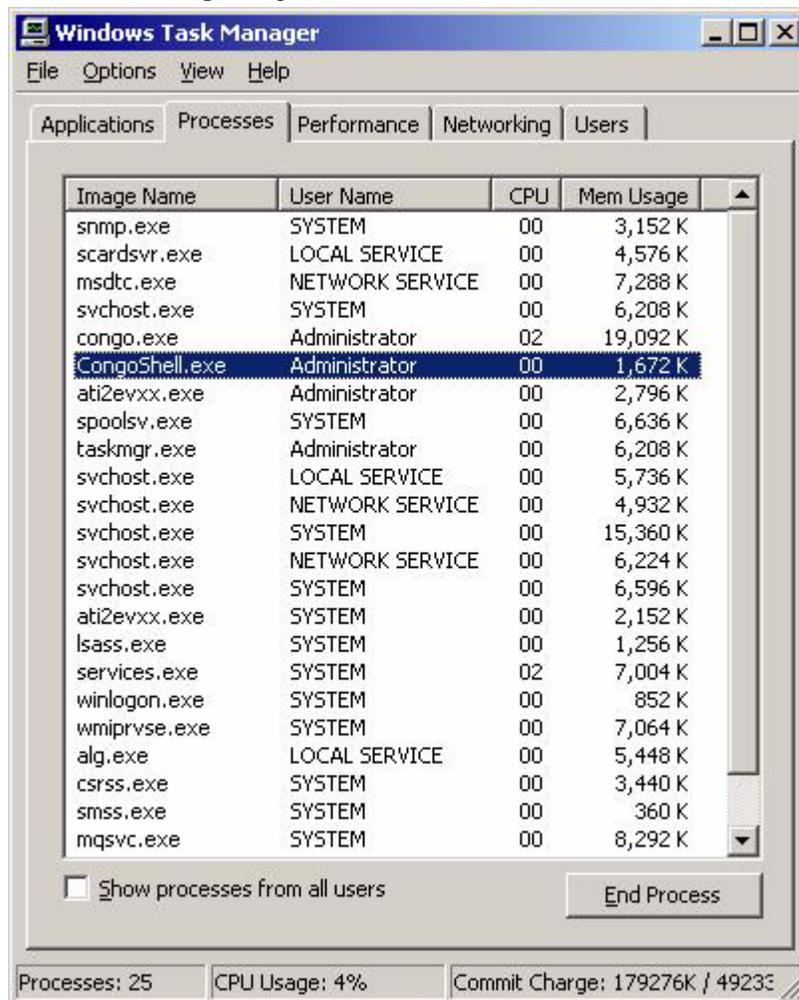


Tools Needed:

- DVI Monitor, or VGA w/ DVI adapters
- USB Keyboard
- USB Mouse

Procedure:

- Step 1: Connect all USB cables to the Congo jr USB ports
- Step 2: Turn on the console
- Step 3: At the main Congo screen press **[Ctrl]+[Alt]+[Delete]** from the USB Keyboard
- Step 4: Select **Task Manager**
- Step 5: Select the **Processes** Tab
- Step 6: Locate **"CongoShell"** Right click on it and click on **End Task**, then click **OK**
- Step 7: Locate **"Congo"** Right click on it and click on **End Task**, then click **OK**

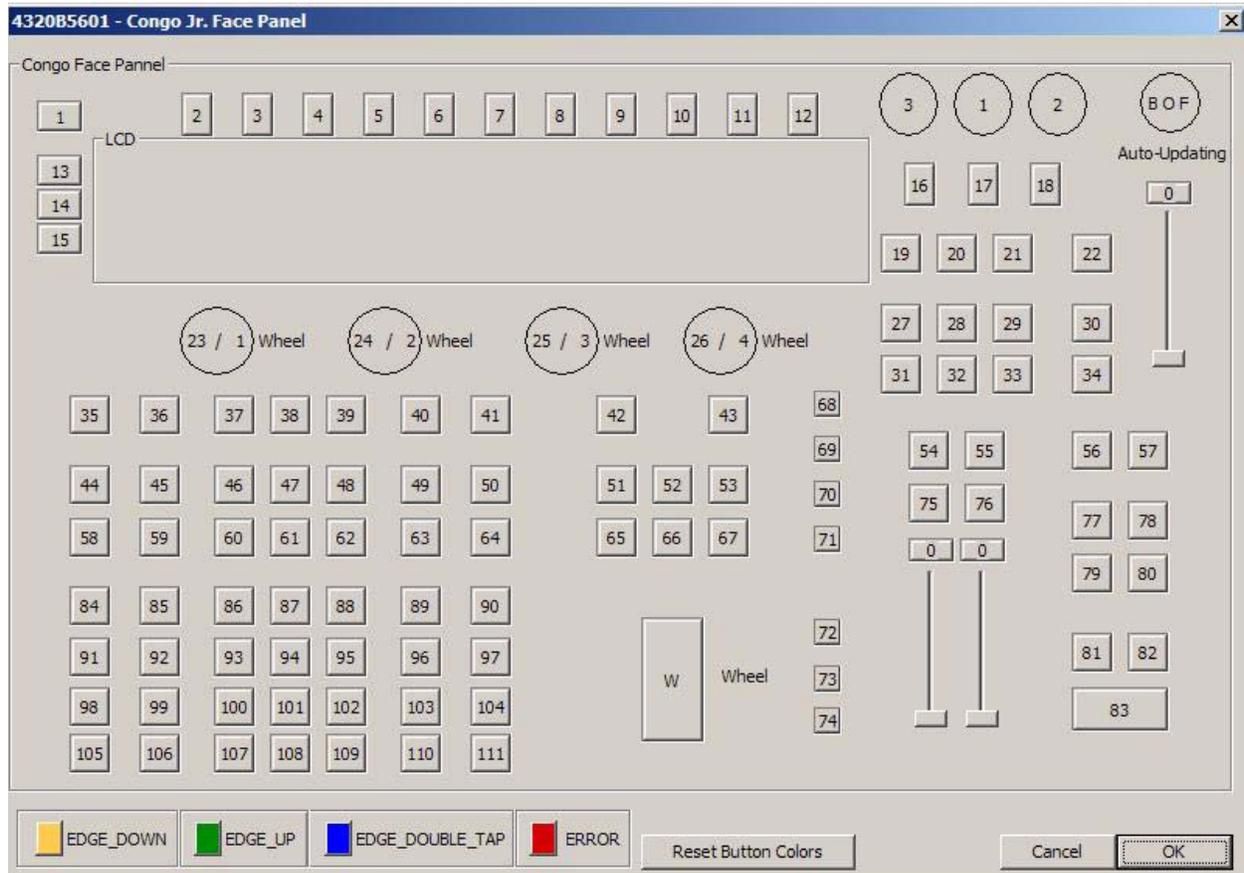


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ETC Service Note

Congo™ jr Face Panel Diagnostics

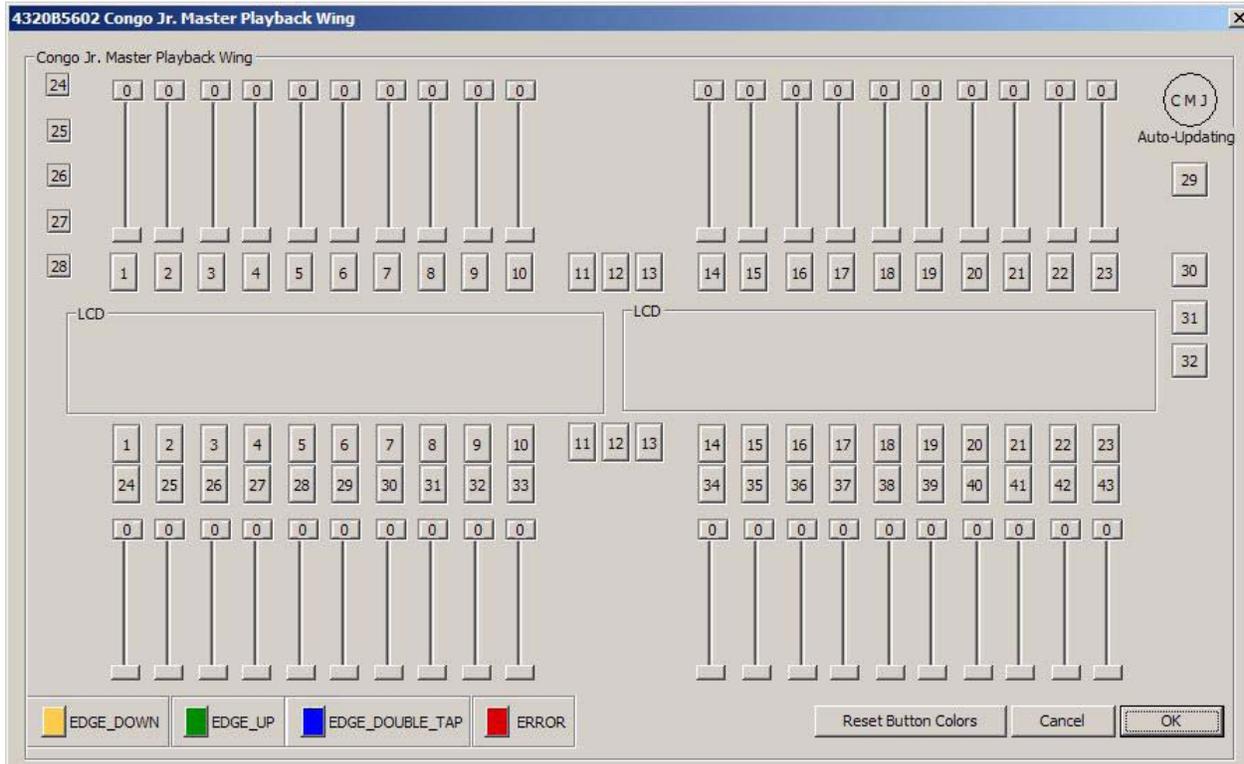
Step 12: The following window will pop up if you click the Congo jr Face button:



ETC Service Note

Congo™ jr Face Panel Diagnostics

Step 13: The following window will pop up if you click the Congo JR. Wing button:



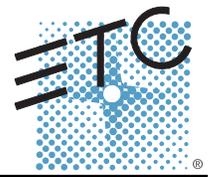
Step 14: Move every slider and press every button on the face panel/master wing. Each button will change color to indicate that the hardware is functional.

Step 15: Every slider move will indicate a range from 0-255.

Step 16: When each button and slider tests out ok; close the window and power the Congo jr down.

ETC[®] Service Note

Congo™ jr MIDI, Phone and Macro Test

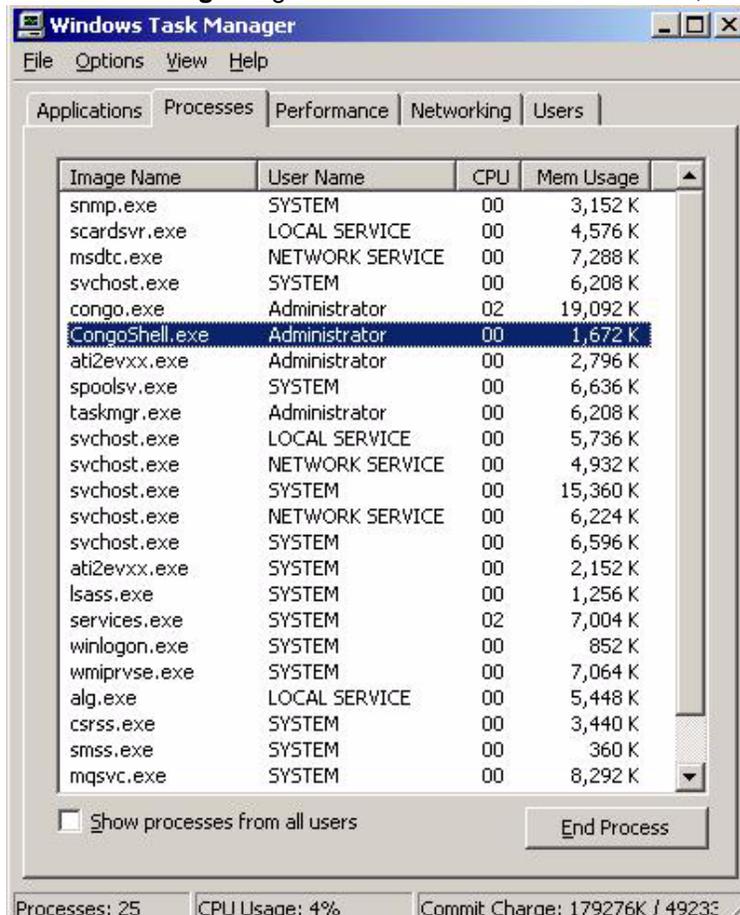


Tools Needed:

- Remote Macro Test board
- Standard telephone and cable
- MIDI cable (5 Pin Din)
- DVI monitor, or VGA w/ DVI adapters
- USB Keyboard
- USB Mouse

Procedure:

- Step 1: Connect all cables to the Congo jr Console
- Step 2: Turn on the console
- Step 3: At the main Congo screen press **[Ctrl]+[Alt]+[Delete]** from the USB keyboard.
- Step 4: Select **Task Manager**
- Step 5: Select the **Processes** Tab
- Step 6: Locate **"CongoShell"** Right click on it and click on **End Task**, then click **Yes**
- Step 7: Locate **"Congo"** Right click on it and click on **End Task**, then click **Yes**



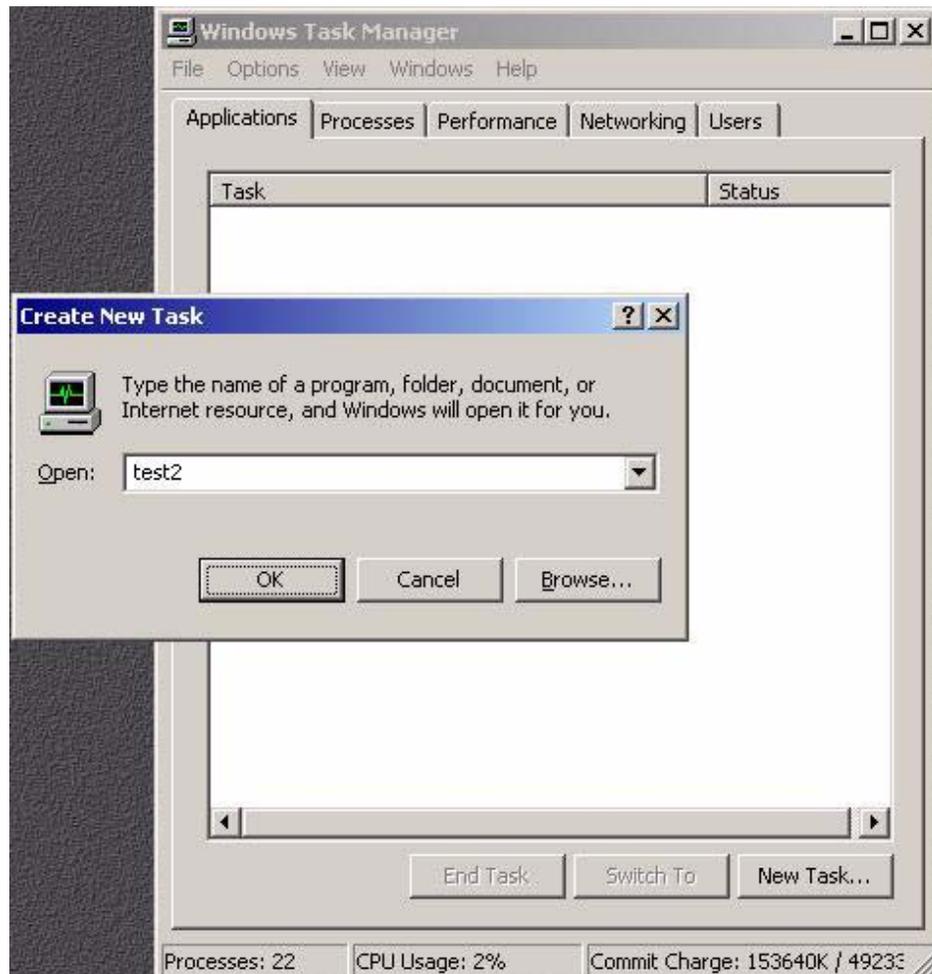
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ETC Service Note

Congo™ jr MIDI, Phone and Macro Test

Step 8: Select **File -> New Task (run)**

Step 9: Type **“test2”** in the text field, then click the **“OK”** button]



Step 10: The following window will pop up:



Step 11: Watch for the 2 LEDs to flash on the Remote Macro Test Board

Step 12: Press the 4 buttons on the LED Remote Macro Test Board (if present), look for **“ACTIVE”** on -the screen

Step 13: Look for MIDI IN messages of 32 and 33 repeating

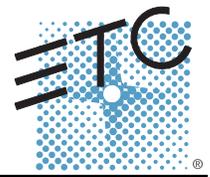
Step 14: Press all 12 buttons on the phone individually and look for corresponding numbers on the screen

Step 15: Close the command window

Step 16: Shut the console down.

ETC® Service Note

Congo™ jr LCD Replacement



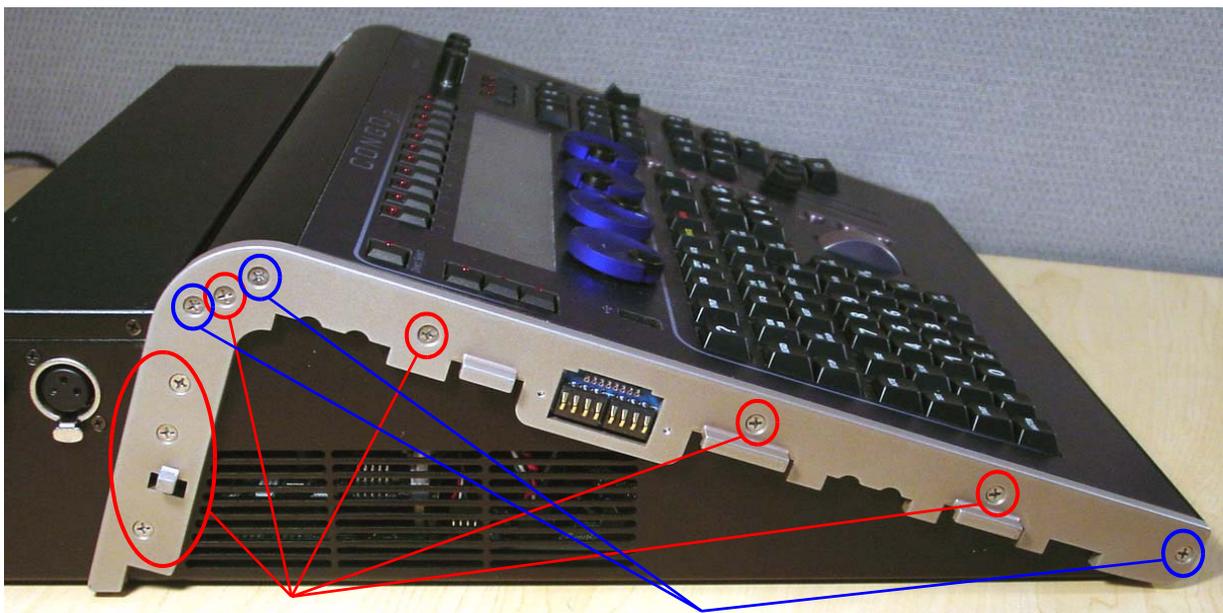
Tools Required:

- #1 Phillips Screwdriver
- #2 Phillips Screwdriver
- Side Cutter
- 4" replacement zip ties

Procedure:

- Step 1: Remove the protective side panels from the Congo jr Console.
- Step 2: Remove the 7 screws indicated in **Red** below.
- Step 3: Loosen the 3 screws indicated in **Blue** below.

NOTE: DO NOT remove the 3 screws.



Remove these screws

Loosen these screws
2 full turns



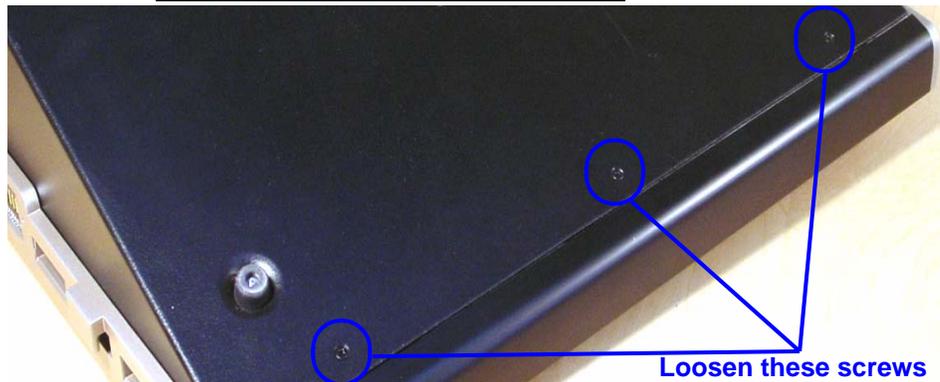
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ETC Service Note

Congo™ jr LCD Replacement

Step 4: Carefully flip over the console and loosen the 3 screws in blue below:

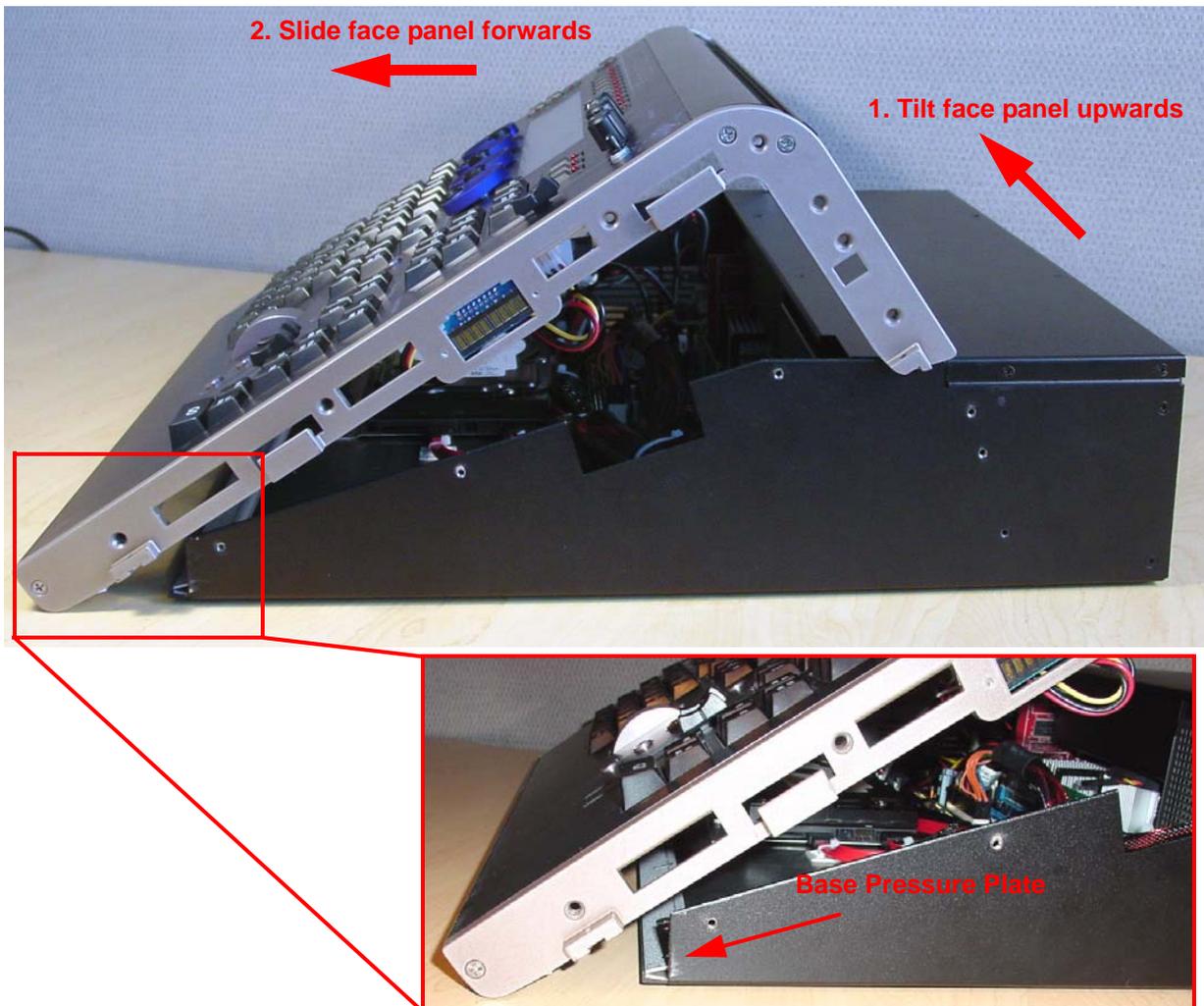
NOTE: DO NOT remove the 3 screws.



Step 5: Flip the console back onto the base.

Step 6: Lift the back side of the face panel upwards away from the base.

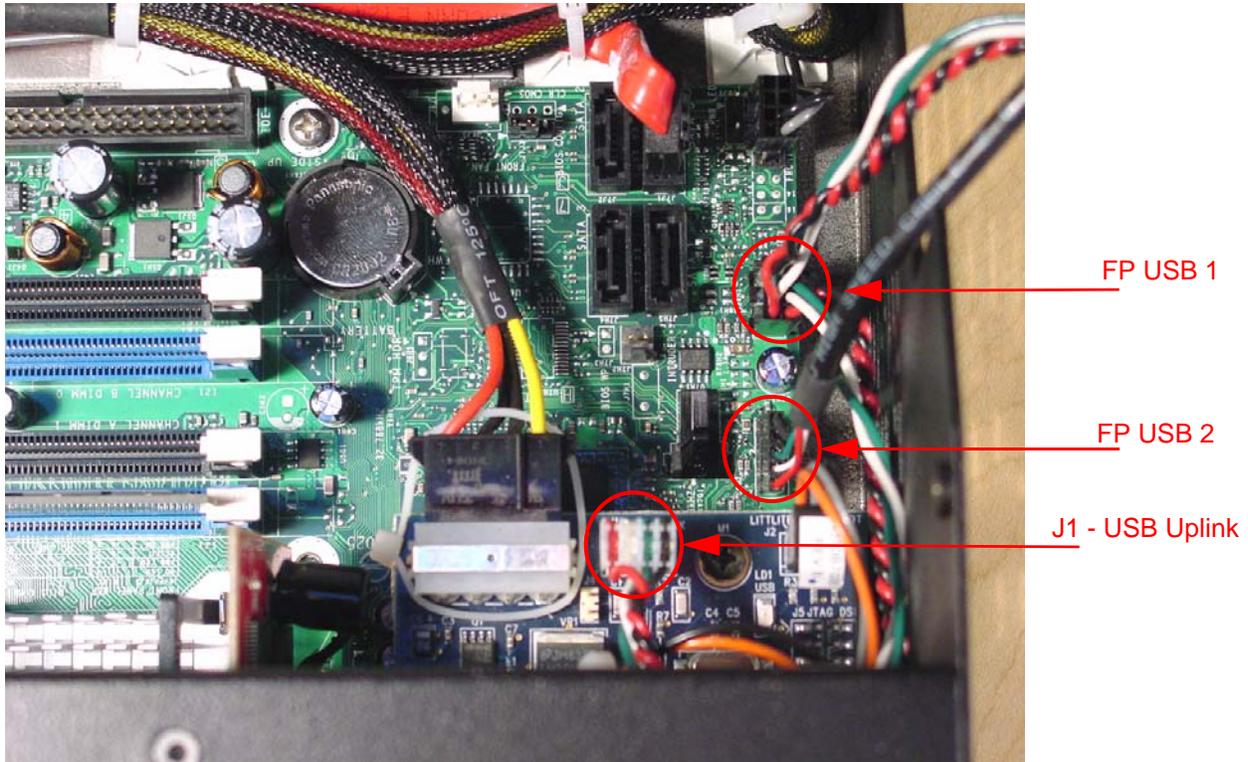
Step 7: Slide the face panel towards the front of the console. The face panel will slip under the base pressure plate.



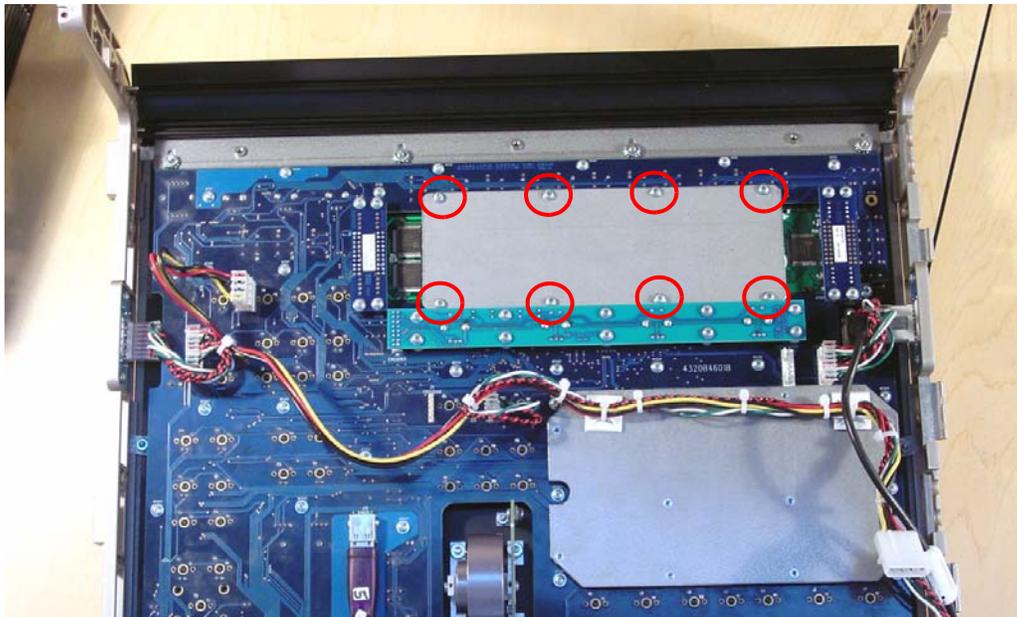
ETC Service Note

Congo™ jr LCD Replacement

- Step 8: Disconnect the J1 USB Uplink from the I/O card.
- Step 9: Disconnect the face panel USB 1&2 connectors from the Congo jr motherboard.
- Step 10: Clip the zip ties holding the face panel cables to the base of the unit.



- Step 11: Carefully set the Congo jr face panel face down exposing the back side of the face panel PCB.

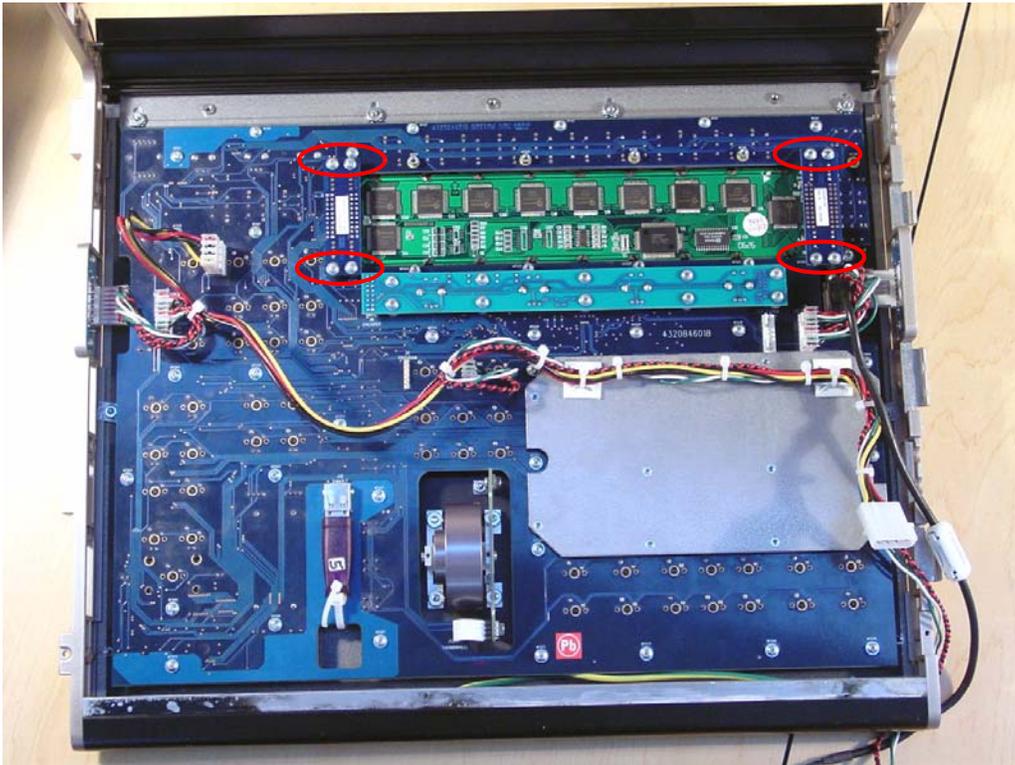


- Step 12: Remove the 8 short screws from the LCD pressure plate.
NOTE: Be sure that you keep these 8 screws separated from the other FP screws as these are shorter than the others.

ETC Service Note

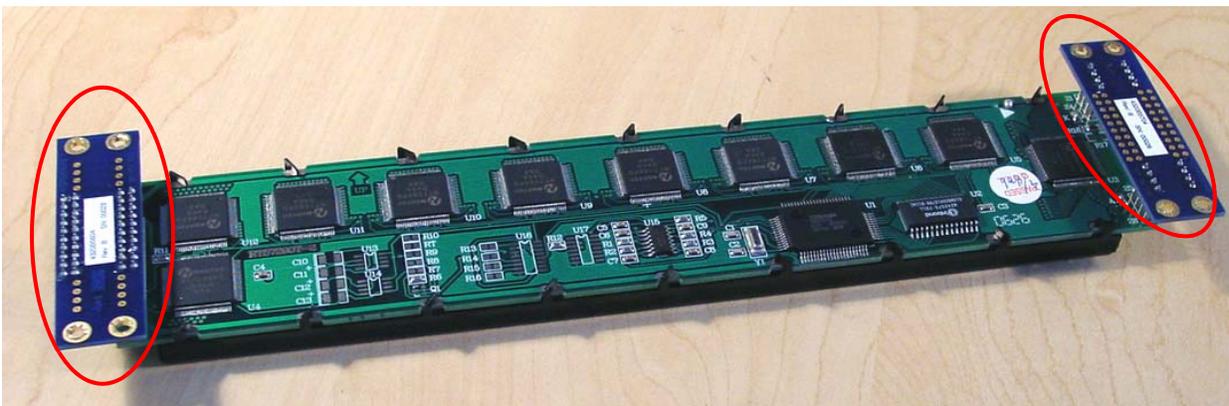
Congo™ jr LCD Replacement

Step 13: Remove the 8 face panel LCD Jumper screws



Step 14: Lightly lift each side of the LCD Screen socket circuit board to remove the LCD screen from the Congo jr face panel.

Step 15: Replace the LCD screen by removing each of the 2 face panel LCD Jumper circuit boards. Re-attach the LCD jumper circuit boards to the new LCD screen.



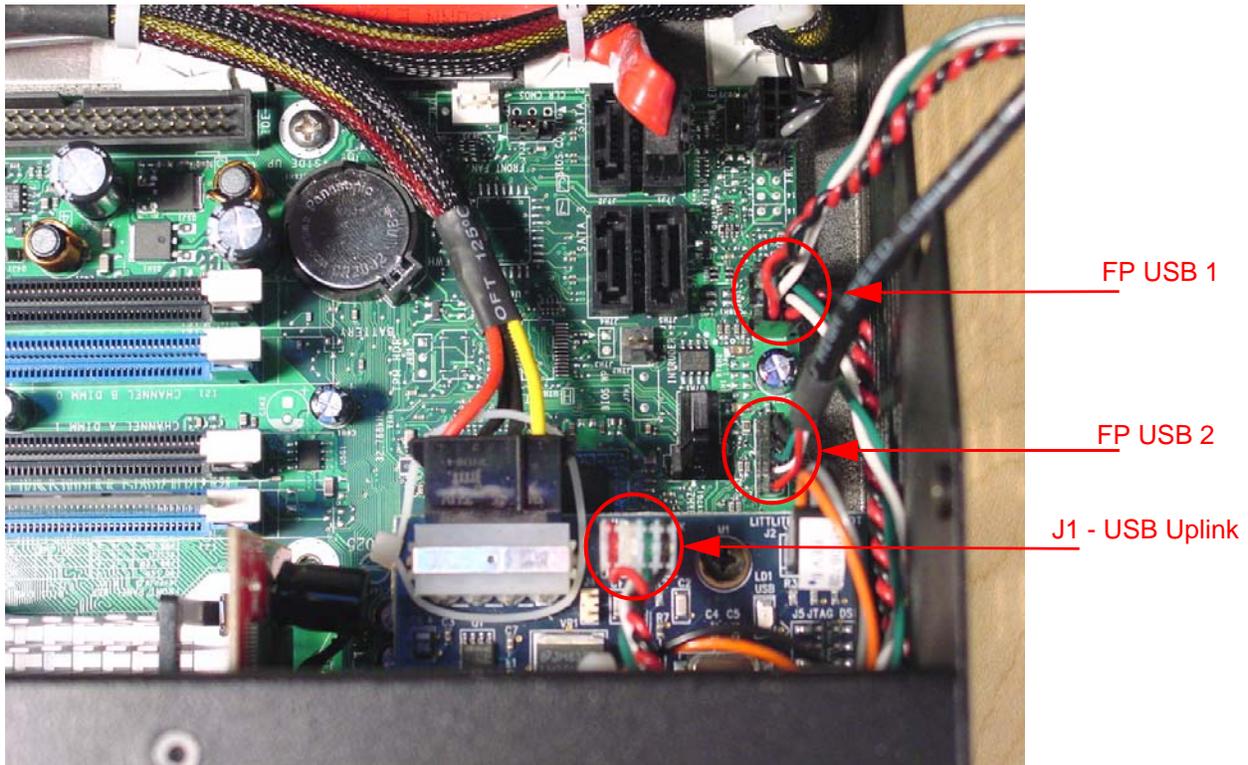
Step 16: Place the LCD screen back into the face panel and screw the circuit board into the standoffs.

Step 17: Place the LCD pressure plate back over the LCD screen and screw the 8 short screws back into the standoffs.

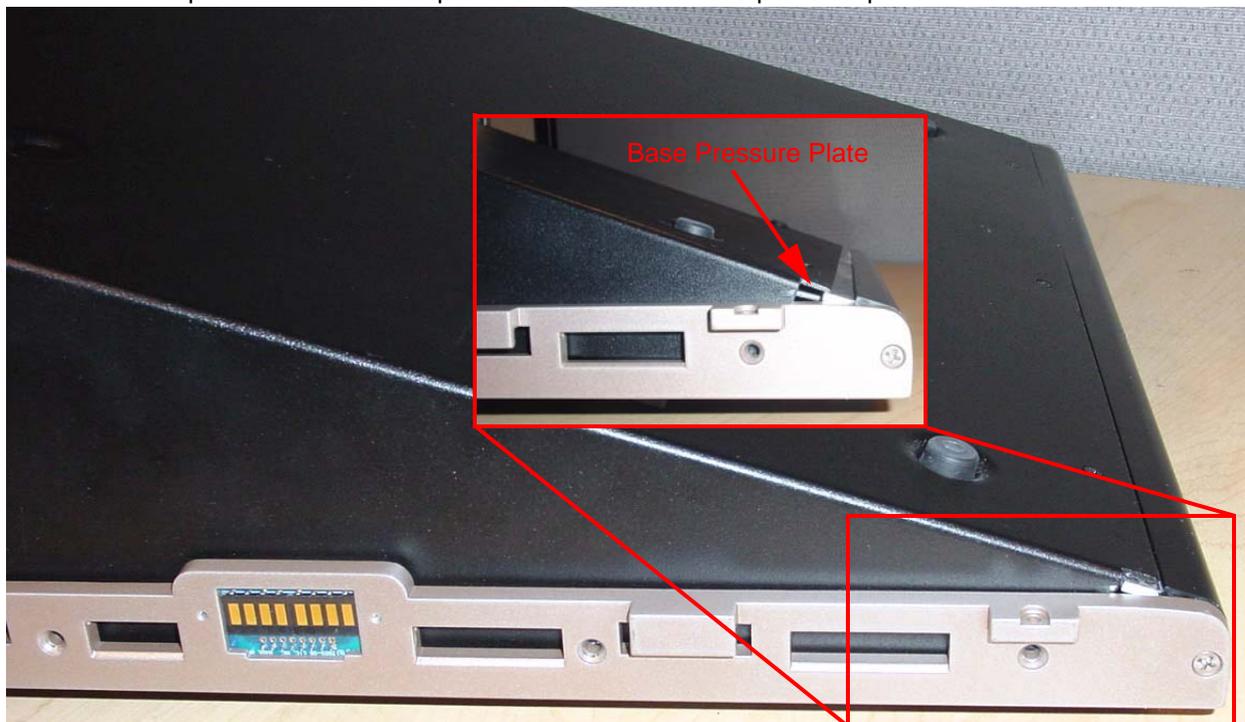
ETC Service Note

Congo™ jr LCD Replacement

Step 18: Re-attach the USB Connectors to the motherboard.



Step 19: Slide the face panel back under the base pressure plate.



Step 20: Re-attach all 7 screws from each side of the console face panel.

Step 21: Flip the face panel over and tighten the 3 screws on the base of the console.

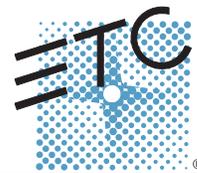
Step 22: Power the console up and verify correct face panel operation and LCD screen operation.

ETC Service Note

Congo™ jr LCD Replacement

ETC® Service Note

Congo™ jr Encoder Replacement



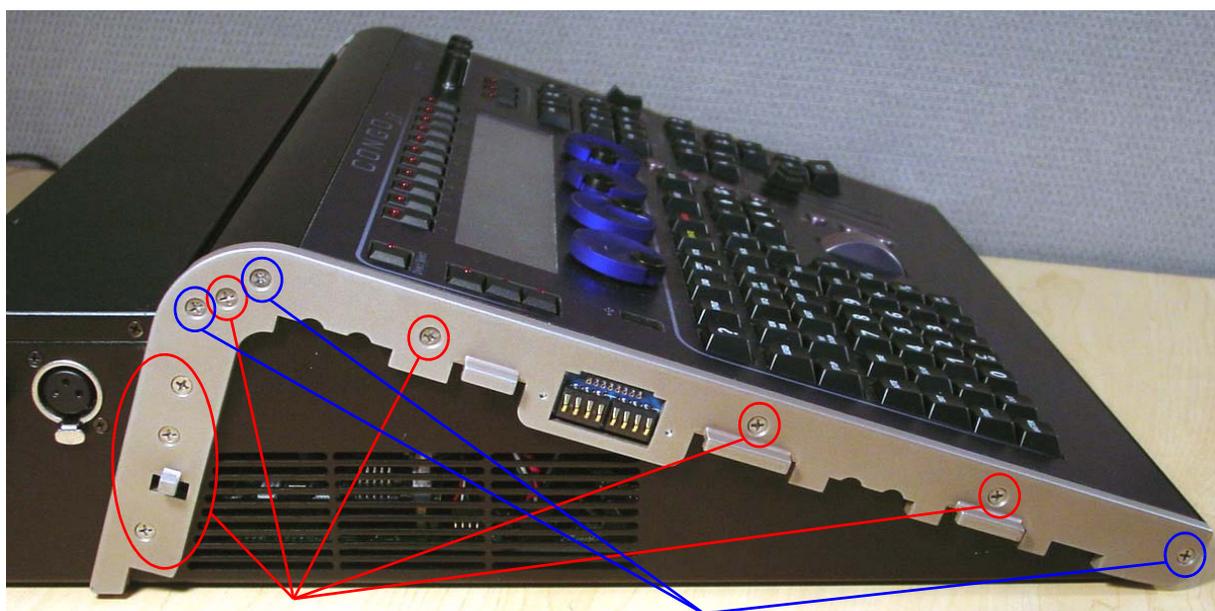
Tools Required:

- #2 Phillips Screwdriver
- #1 Phillips Screwdriver
- Side Cutter
- Needle Nose Pliers
- Soldering Iron
- Lead Free Solder
- 4" Replacement zip ties
- .050 angled Hex key

Procedure:

- Step 1: Remove the protective side panels from the Congo jr Console.
- Step 2: Remove the 7 screws indicated in **Red** below.
- Step 3: Loosen the 3 screws indicated in **Blue** below.

NOTE: DO NOT remove the 3 screws.



Remove these screws

Loosen these screws
2 full turns



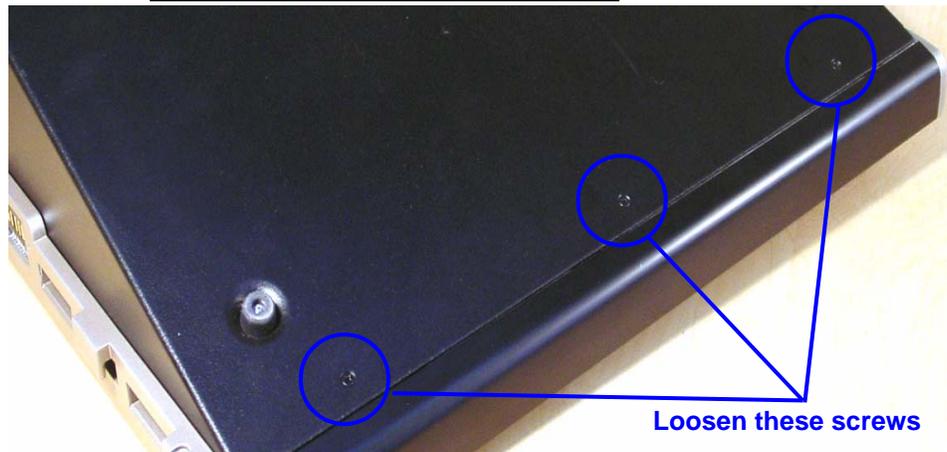
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ETC Service Note

Congo™ jr Encoder Replacement

Step 4: Carefully flip over the console and loosen the 3 screws in blue below:

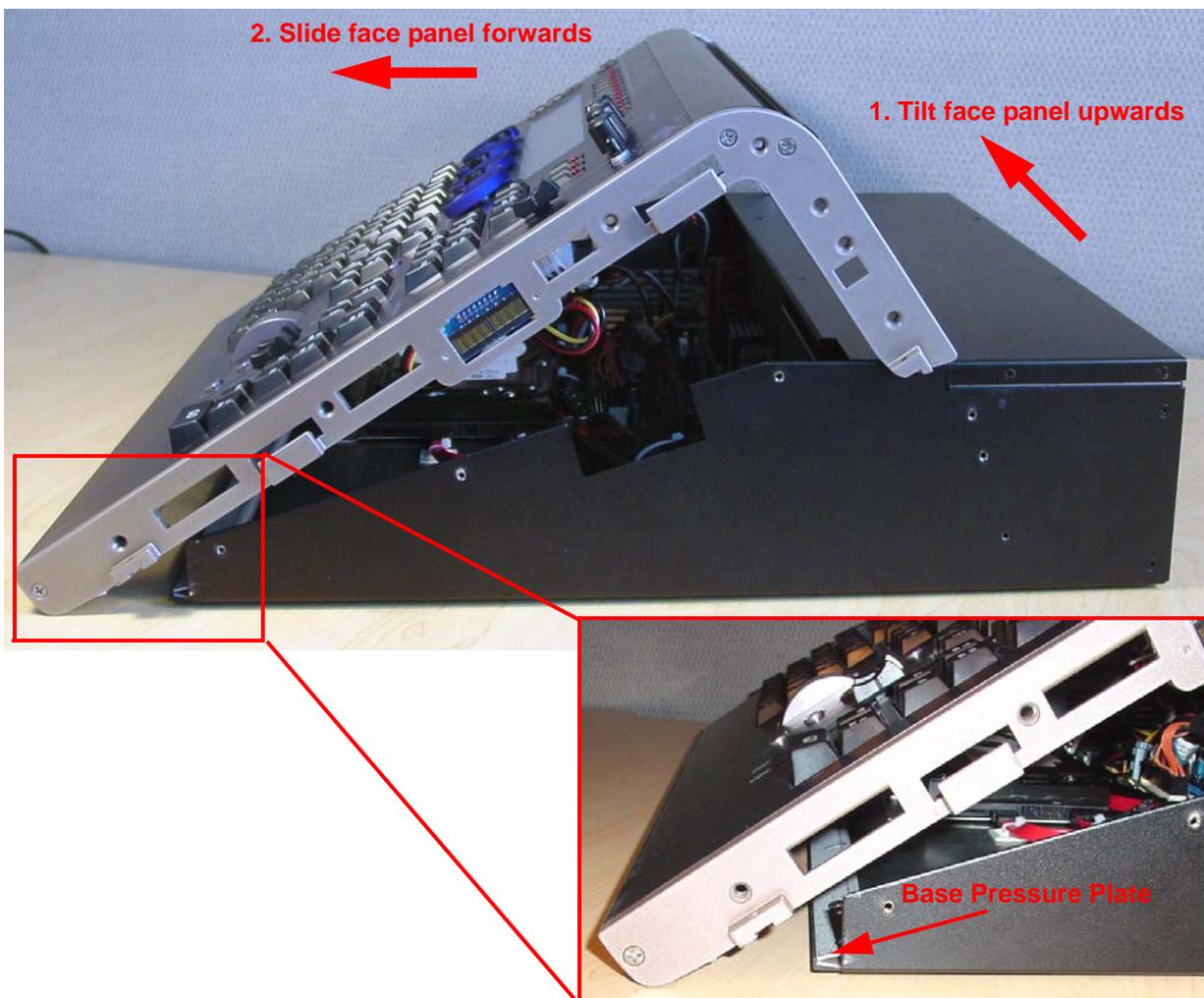
NOTE: DO NOT remove the 3 screws.



Step 5: Flip the console back onto the base.

Step 6: Lift the back side of the face panel upwards away from the base.

Step 7: Slide the face panel towards the front of the console. The face panel will slip under the base pressure plate.

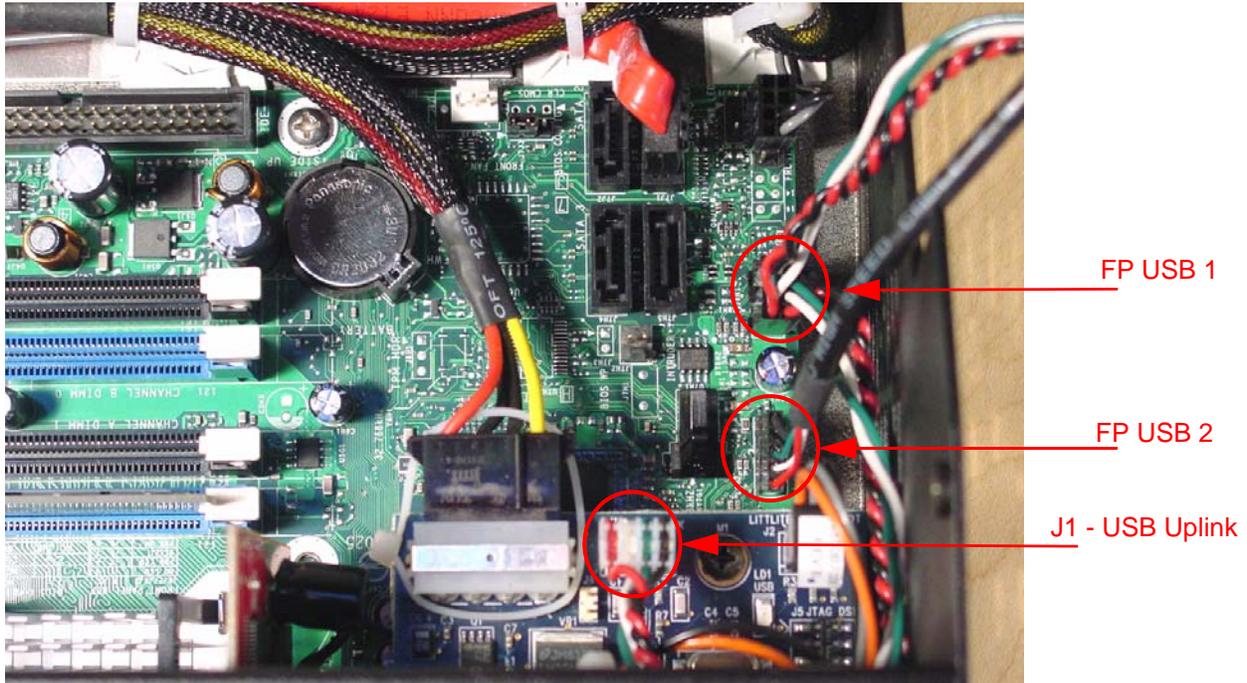


ETC Service Note

Congo™ jr Encoder Replacement

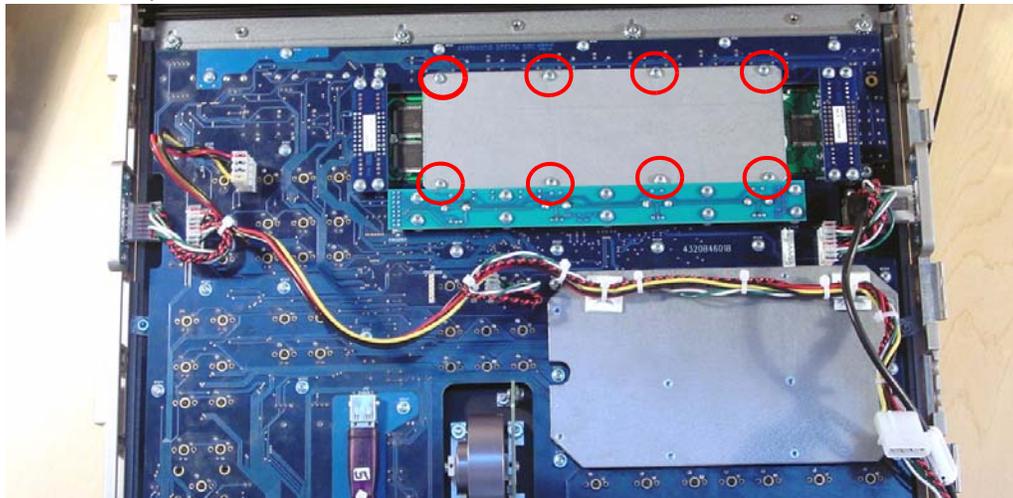
Step 8: Disconnect the J1 USB uplink from the I/O card.

Step 9: Disconnect the face panel USB 1&2 connectors from the Congo jr Motherboard.



Step 10: Clip the zip ties holding the face panel cables to the base of the unit.

Step 11: Carefully set the Congo jr face panel face down exposing the back side of the face panel PCB.



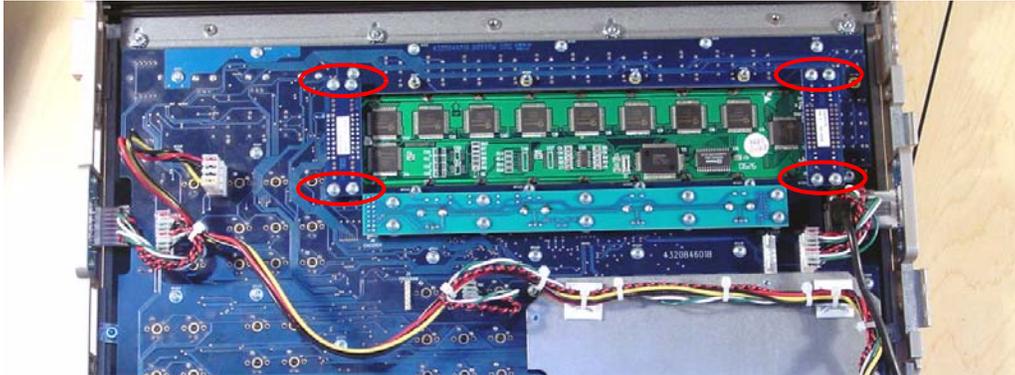
Step 12: Remove the 8 short screws from the LCD pressure plate.

NOTE: Be sure that you keep these 8 screws separated from the other face panel screws as these are shorter screws than the others.

ETC Service Note

Congo™ jr Encoder Replacement

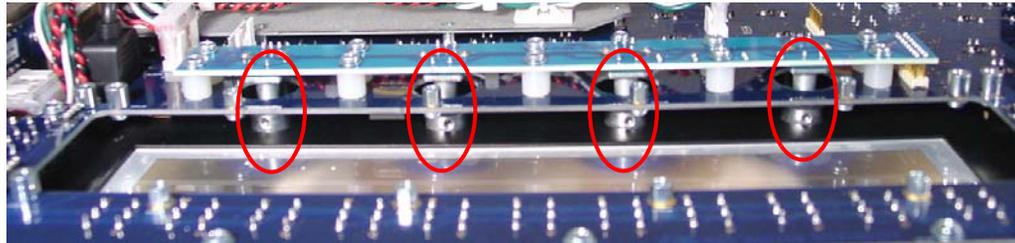
Step 13: Remove the 8 face panel LCD Jumper screws



Step 14: Lightly lift each side of the LCD screen socket circuit board to remove the LCD Screen from the Congo jr face panel.

Step 15: With the LCD screen removed from the face panel, you can now access the encoder knob shafts.

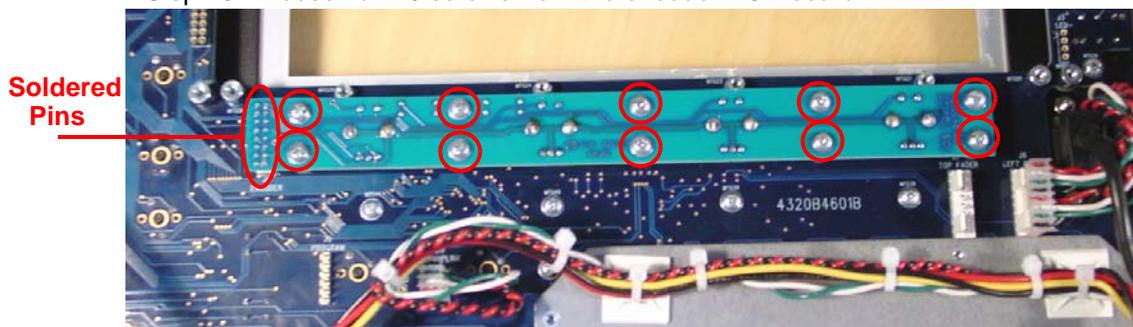
Step 16: Spin the encoder shaft until the hex nut is visible.



Step 17: Loosen the hex nut until the encoder falls from the shaft.



Step 18: Loosen all 10 screws from the encoder PCB board.



ETC Service Note

Congo™ jr Encoder Replacement

Step 19: Replace encoders as needed on PCB or replace the whole board.

NOTE: Pins on this board are soldered, not socketed. You will need to de-solder each of the 16 pins. DO NOT THROW THESE PINS AWAY. You will need to re-solder the pins once the encoder/board has been replaced.

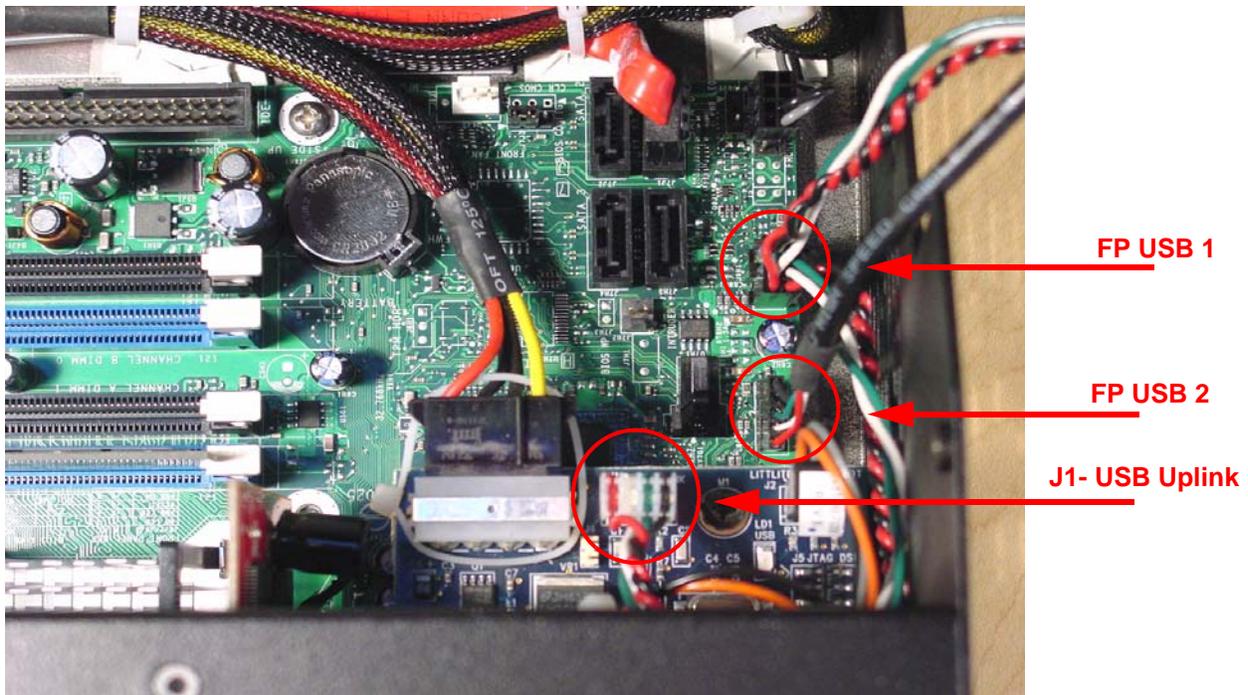
Step 20: Once the encoder/board has been replaced, re-solder the 16 pins on the left side of this board. Re-attach all 10 screws of the encoder board to the appropriate stand off.

NOTE: The stand offs used on this board are plastic. DO NOT OVER TIGHTEN: doing so will strip the standoff. Attach these screws with a manual screw driver only.

Step 21: Replace the LCD Screen and attach all 8 of the screws on either side of the LCD Jumper Board.

Step 22: Place the LCD Pressure plate back over the LCD Screen and attach the 8 short screws back into their respective standoff.

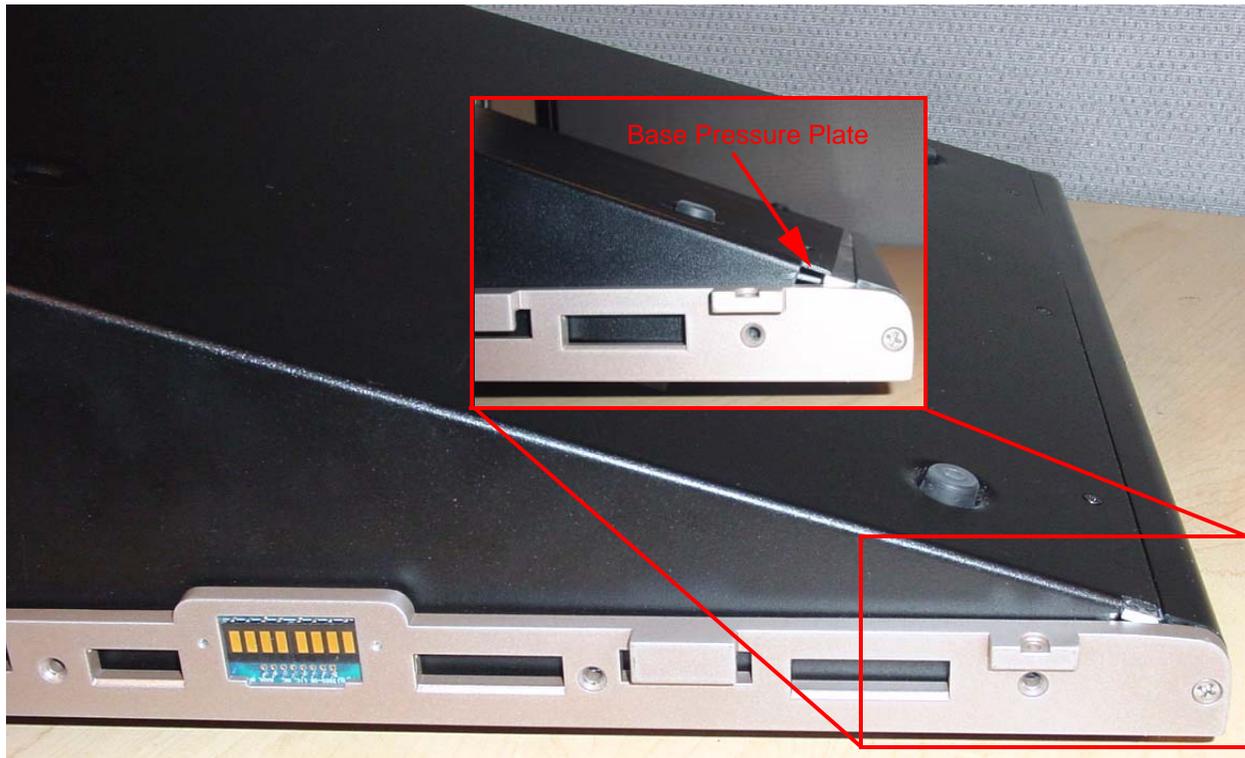
Step 23: Re-attach the USB Connectors to the motherboard.



ETC Service Note

Congo™ jr Encoder Replacement

Step 24: Slide the face panel back under the Base pressure plate.



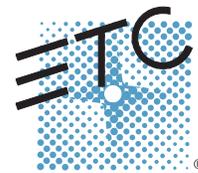
Step 25: Re-attach all 7 screws from each side of the console face panel.

Step 26: Flip the face panel over and tighten the 3 screws on the base of the console.

Step 27: Power the console up and verify correct console operation.

ETC® Service Note

Congo™ jr Video Card Replacement



Tools Required:

#2 Phillips Screwdriver

#1 Phillips Screwdriver

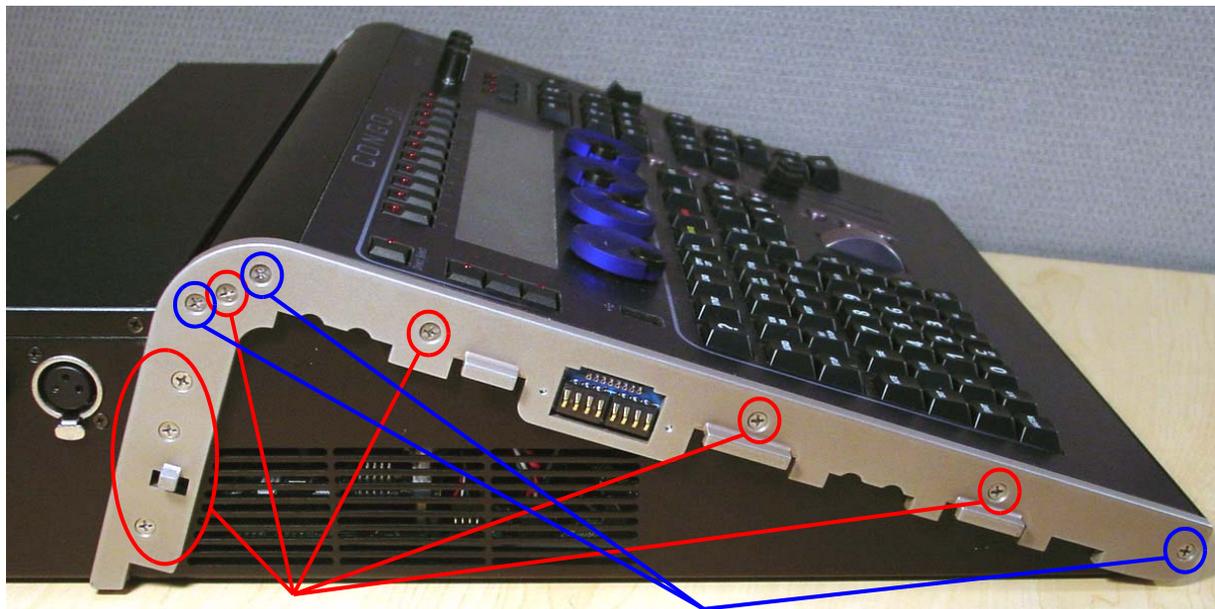
Procedure:

Step 1: Remove the protective side panels from the Congo jr Console.

Step 2: Remove the 7 screws indicated in **Red** below.

Step 3: Loosen the 3 screws indicated in **Blue** below.

NOTE: DO NOT remove the 3 screws.

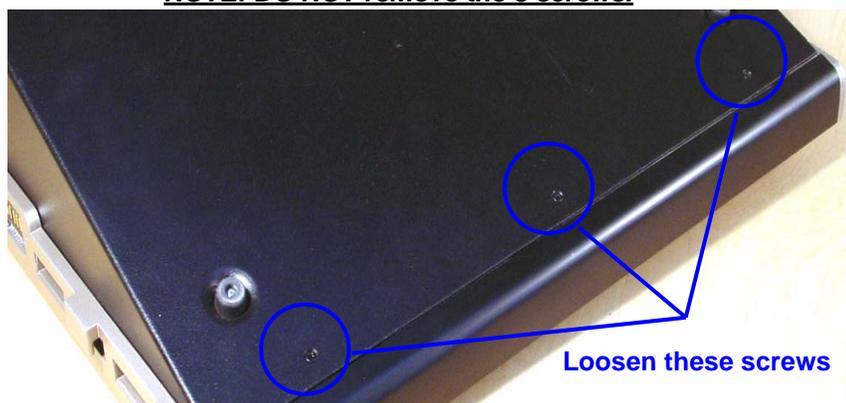


Remove these screws

Loosen these screws
2 full turns

Step 4: Carefully flip over the console and loosen the 3 screws in **blue** below:

NOTE: DO NOT remove the 3 screws.



Loosen these screws

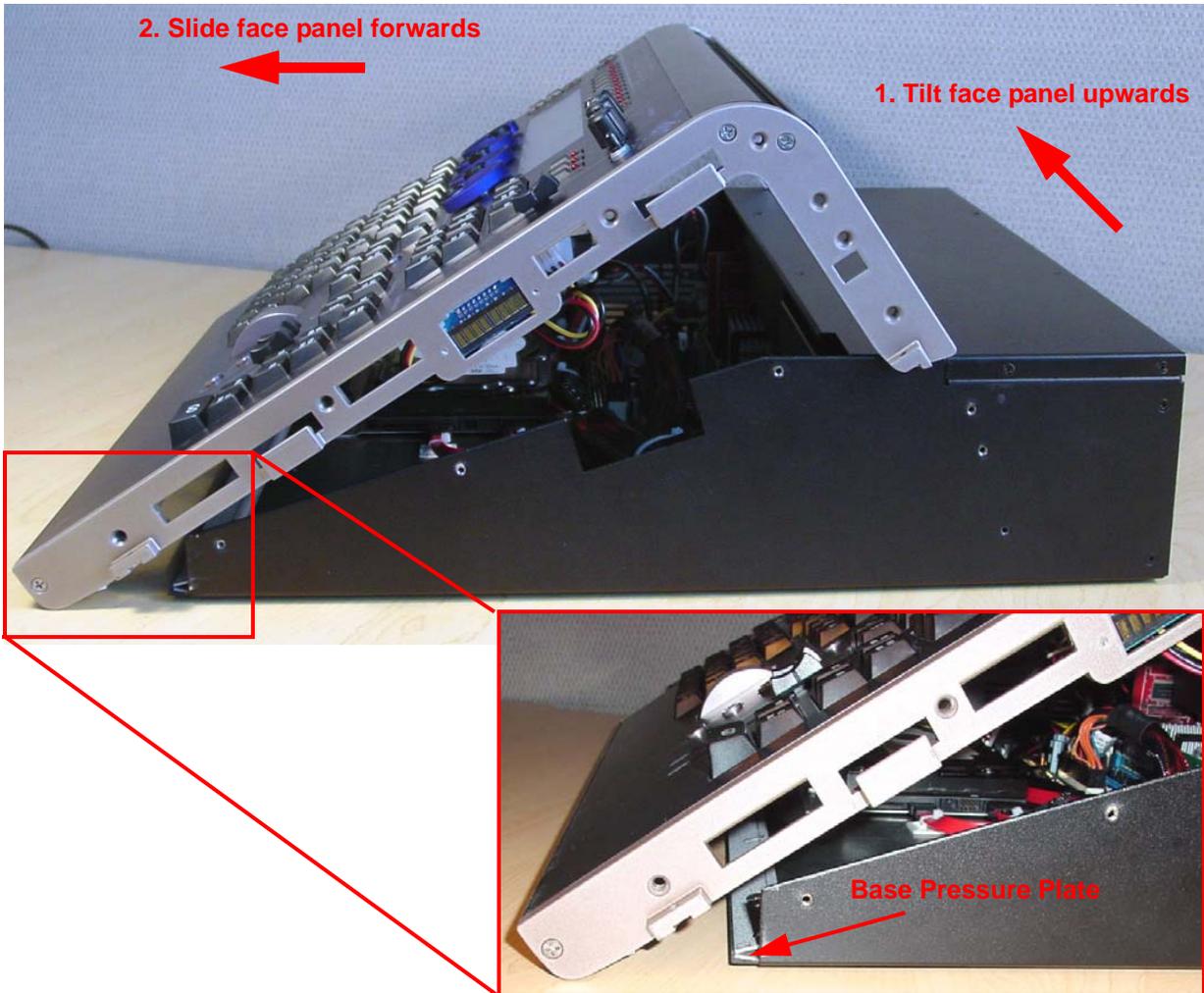


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ETC Service Note

Congo™ jr Video Card Replacement

- Step 5: Flip the console back onto the base.
- Step 6: Lift the back side of the face panel upwards away from the base.
- Step 7: Slide the face panel towards the front of the console. The face panel will slip under the base pressure plate.

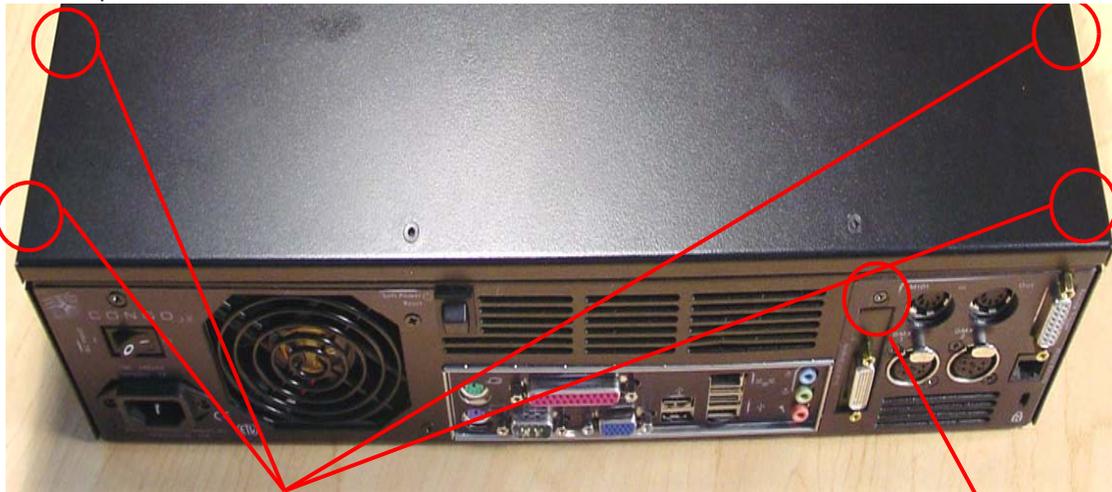


- Step 8: Rest the face panel off to the left side of the base unit. (the side with the DMX connectors) There is no need to remove the face panel cables when replacing the video card.

ETC Service Note

Congo™ jr Video Card Replacement

Step 9: Remove all 5 screws from both sides and the rear of the base.



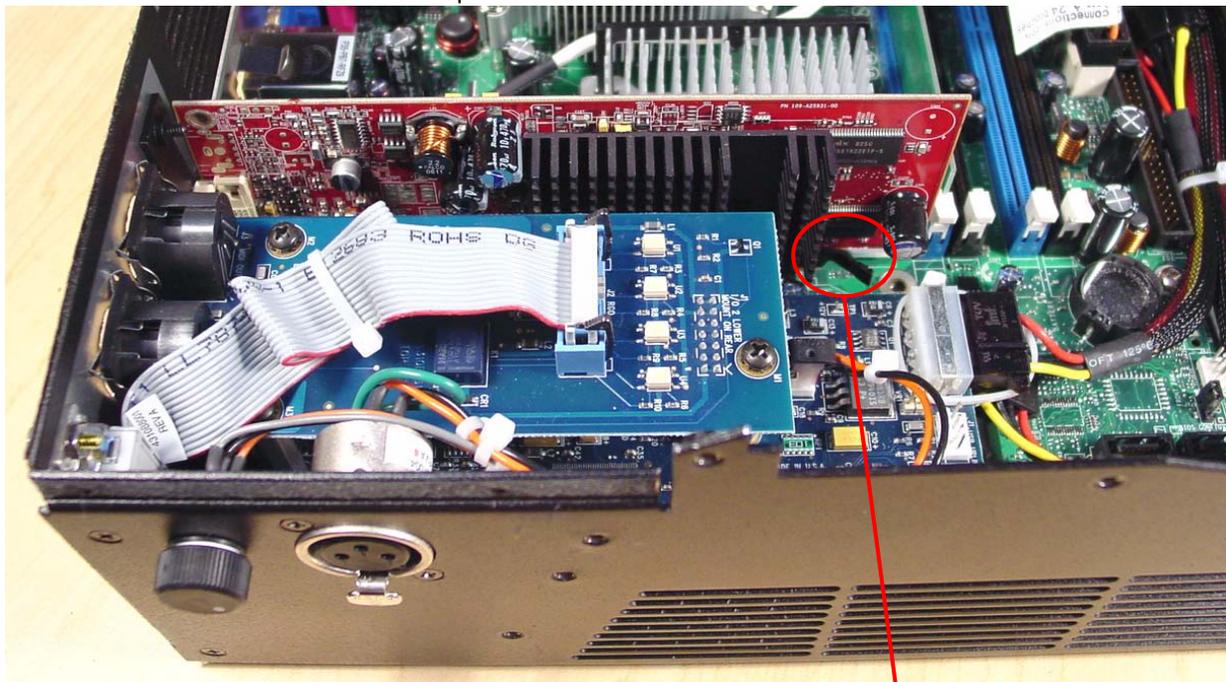
Remove these screws (located on side of chassis)

Remove this screw

Step 10: Remove the base cover, and set aside.

Step 11: Locate the AGP video card near the MIDI and DMX connectors.

Step 12: Pull back the AGP slot locking tab towards the DMX I/O Card. At the same time, pull the video card up and out of the AGP slot.

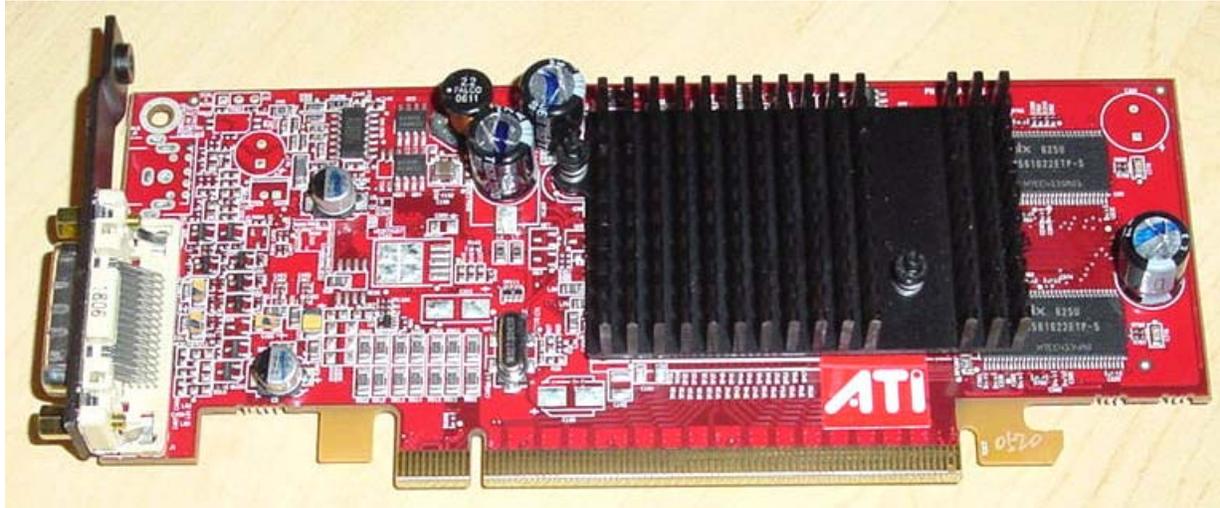


**Pull APG slot tab towards
DMX I/O Card**

ETC Service Note

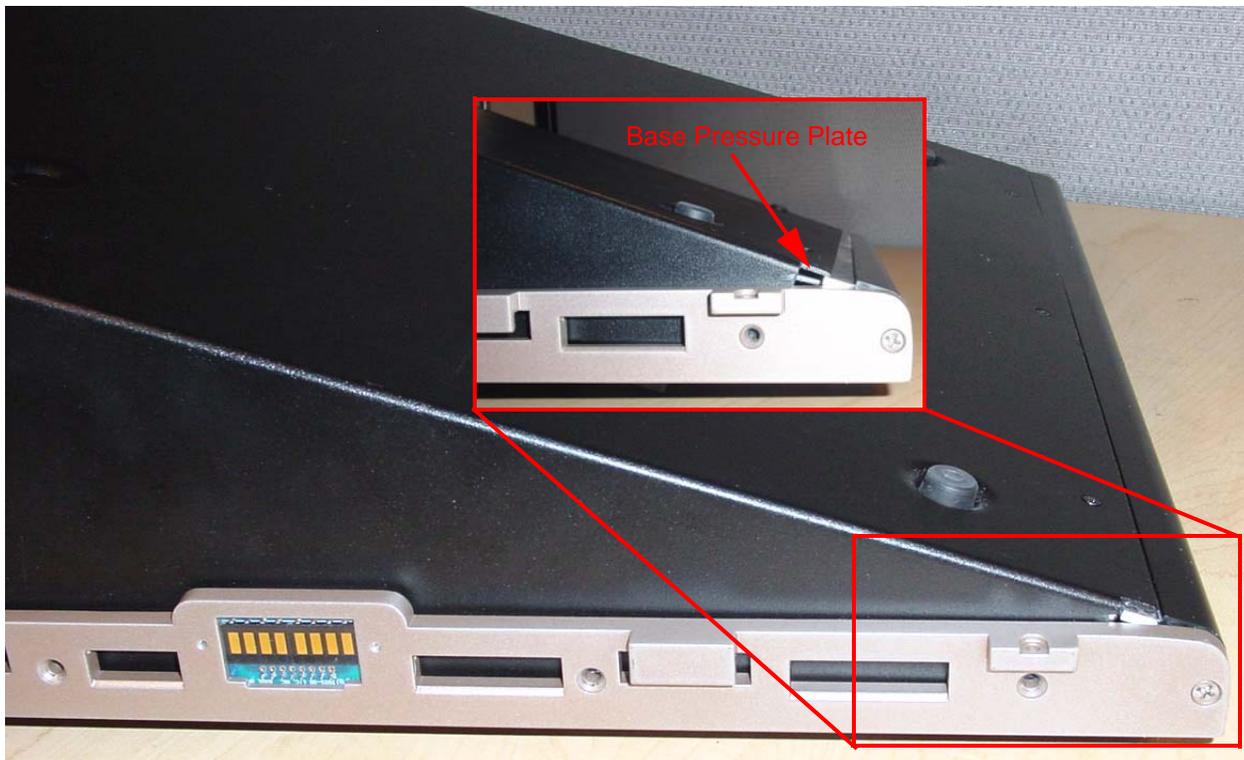
Congo™ jr Video Card Replacement

Step 13: Set the defective/damaged video card aside.



Step 14: Insert the new video card into the motherboard. There should be a click heard/felt when the video card is seated all the way into the AGP Slot.

Step 15: Place the base cover back onto the base of the console and re-attach all 5 screws.



Step 16: Slide the face panel back under the base pressure plate.

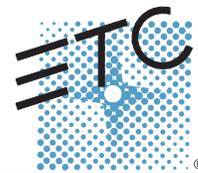
Step 17: Re-attach all 7 screws from each side of the console face panel.

Step 18: Flip the face panel over and tighten the 3 screws on the base of the console.

Step 19: Power the console up and verify console operation.

ETC® Service Note

Congo™ jr Hard Drive Replacement



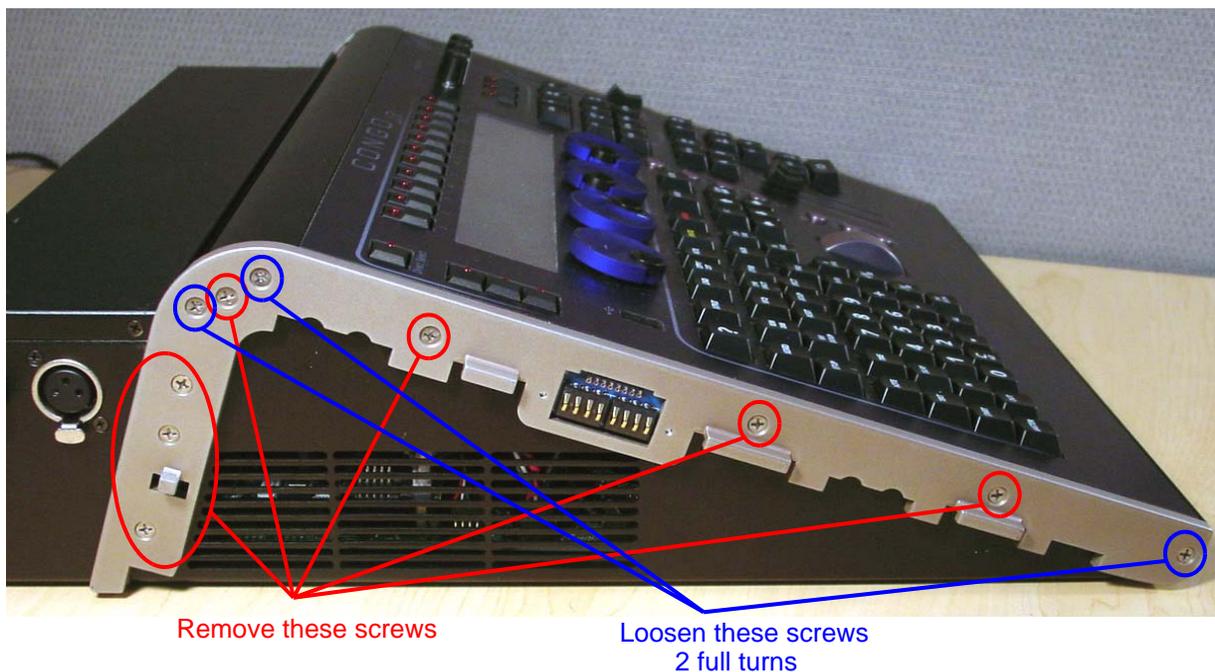
Tools Required:

- #2 Phillips Screwdriver
- #1 Phillips Screwdriver
- Side Cutter
- (3) 4" Replacement zip ties

Procedure:

- Step 1: Remove the protective side panels from the Congo jr Console.
- Step 2: Remove the 7 screws indicated in **Red** below.
- Step 3: Loosen the 3 screws indicated in **Blue** below.

NOTE: DO NOT remove the 3 screws.



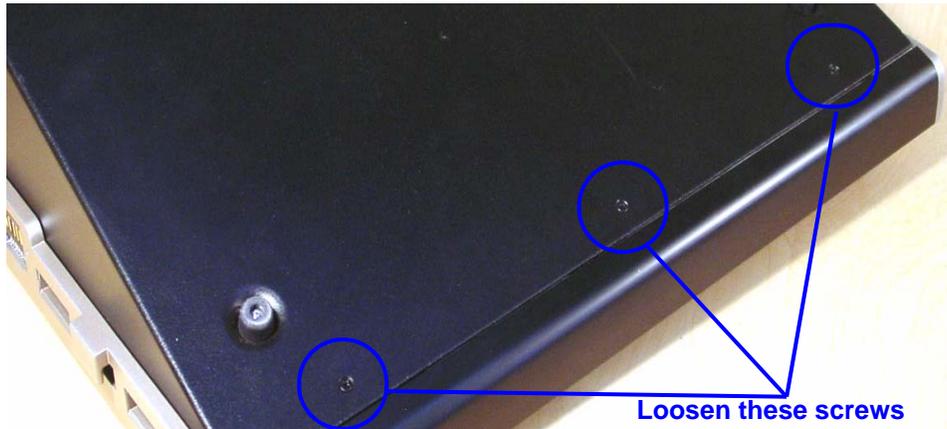
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Congo™ jr Hard Drive Replacement

Step 4: Carefully flip over the console and loosen the 3 screws in blue below:

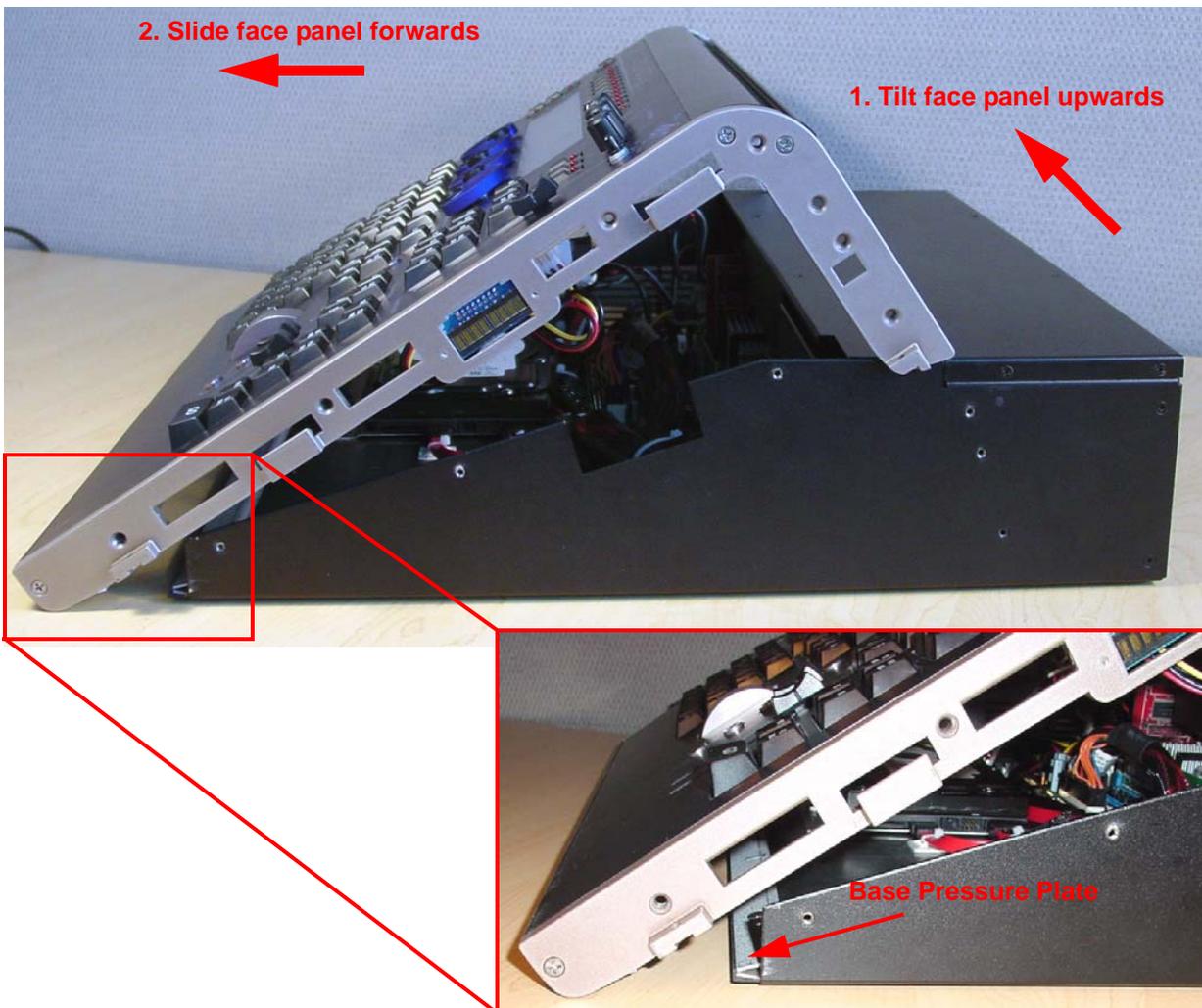
NOTE: DO NOT remove the 3 screws.



Step 5: Flip the console back onto the base.

Step 6: Lift the back side of the face panel upwards away from the base.

Step 7: Slide the face panel towards the front of the console. The face panel will slip under the base pressure plate.

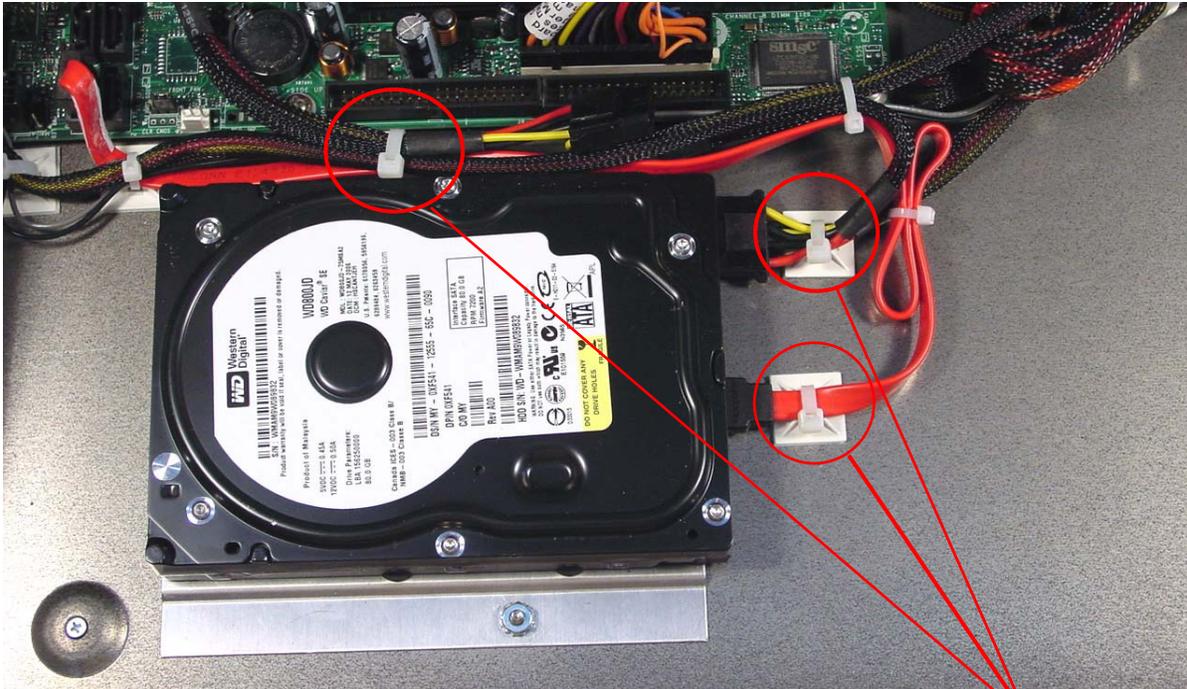


ETC Service Note

Congo™ jr Hard Drive Replacement

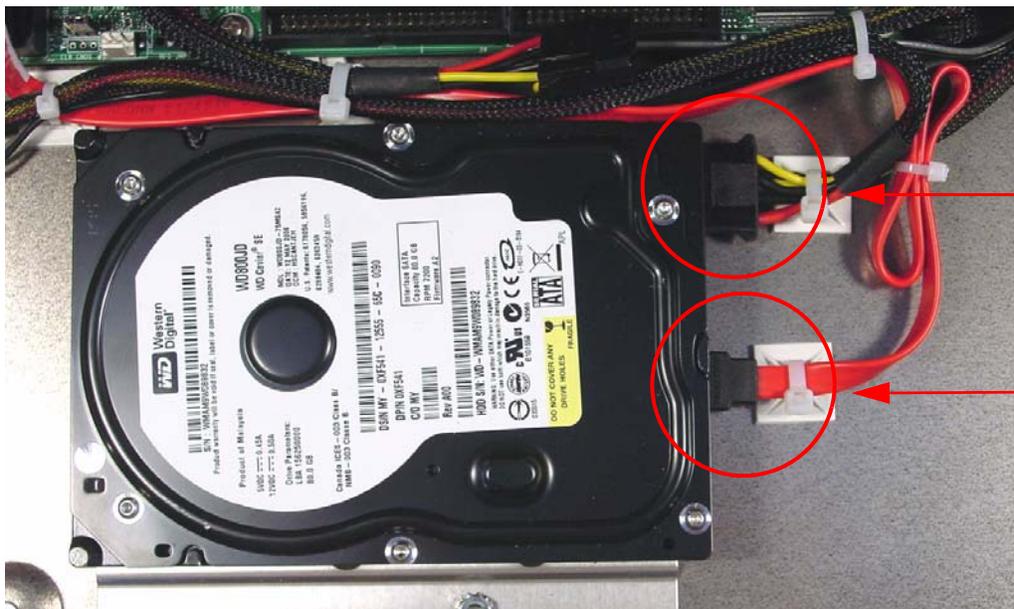
Step 8: Rest the face panel off to the left side of the base unit. (the side with the DMX connectors) There is no need to remove the face panel cables when replacing the hard drive.

Step 9: Clip all 3 zip ties holding the Power supply and SATA cables.



Remove these zip ties

Step 10: Disconnect the Power and SATA connectors from the hard drive.



Power Cable

SATA Cable

ETC Service Note

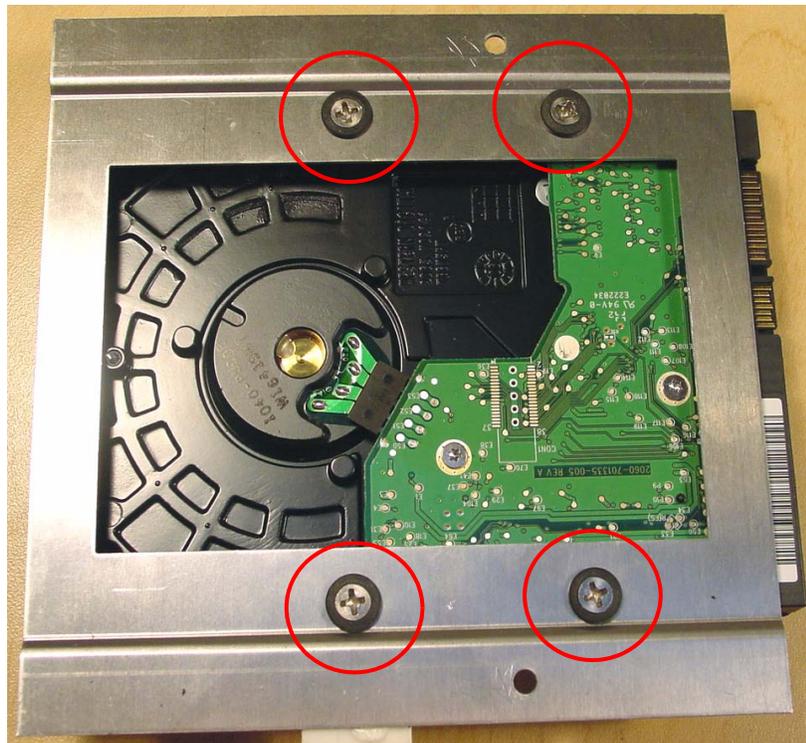
Congo™ jr Hard Drive Replacement

Step 11: Using a 5/16" nut driver, remove both nuts from the hard drive plate.



Remove both
5/16" nuts

Step 12: Remove all 4 Hard Drive Plate Screws.



Step 13: Swap the old Hard Drive for the new one. Replace all four screws holding it to the Hard Drive Mounting plate.

Step 14: Place the Hard Drive Plate over the screws and tighten down both 5/16" nuts.

Step 15: Re-attach the Hard Drive Power and SATA cables back into the hard drive.

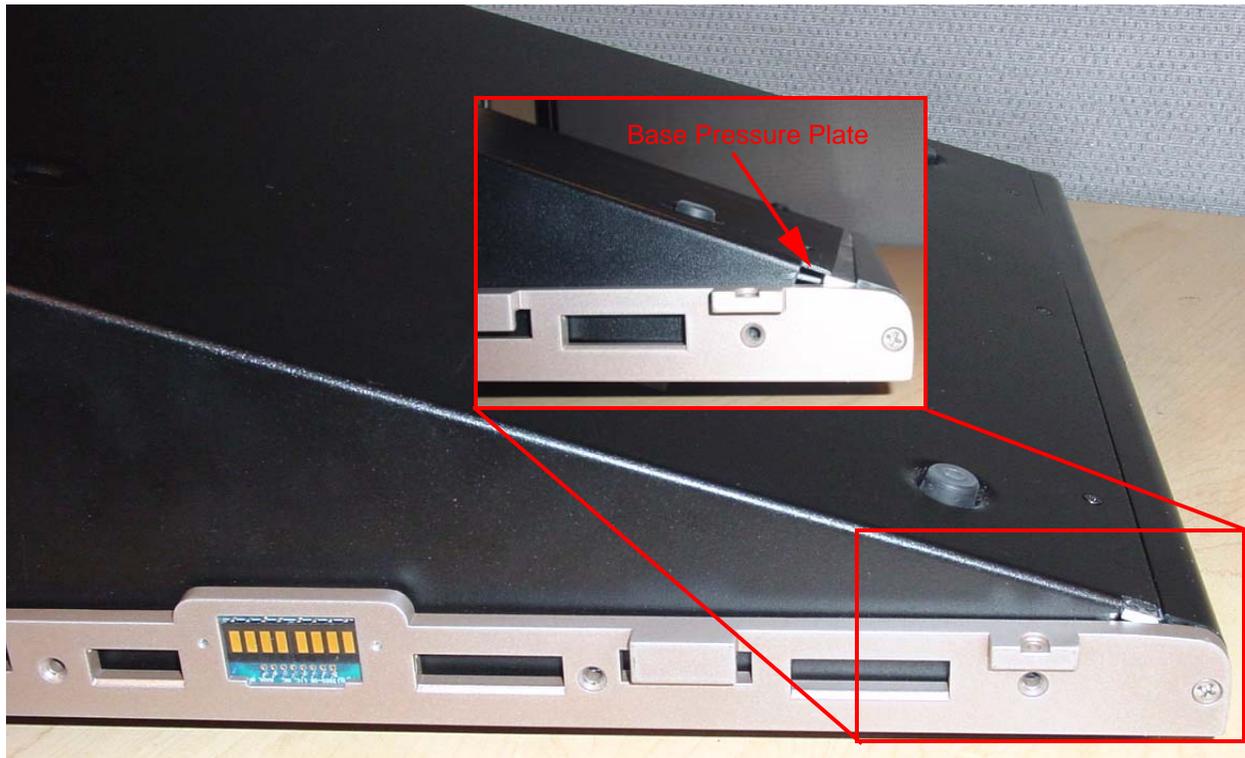
Step 16: Replace all 3 zip ties around the sticky backs.

Step 17: Trim the excess tail off the zip ties.

ETC Service Note

Congo™ jr Hard Drive Replacement

Step 18: Slide the face panel back under the pressure plate..



Step 19: Re-attach all 7 screws from each side of the console face panel.

Step 20: Flip the face panel over and tighten the 3 screws on the base of the console.

Step 21: Power the console up and verify correct face panel operation and LCD screen operation.

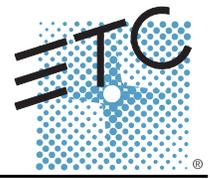
Step 22: Update console software as necessary.

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Congo™ jr Hard Drive Replacement

ETC® Service Note

Congo™ jr DMX Driver Chip Replacement



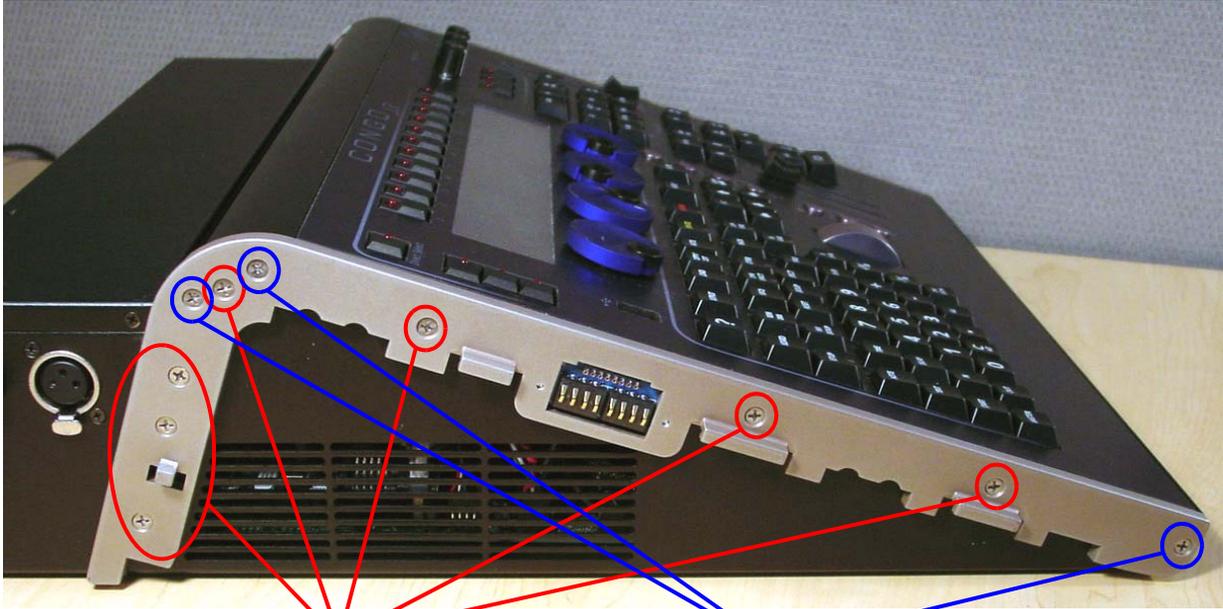
Tools Required:

- #2 Phillips Screwdriver
- #1 Phillips Screwdriver

Procedure:

- Step 1: Remove the protective side panels from the Congo jr Console.
- Step 2: Remove the 7 screws indicated in **Red** below.
- Step 3: Loosen the 3 screws indicated in **Blue** below.

NOTE: DO NOT remove the 3 screws.

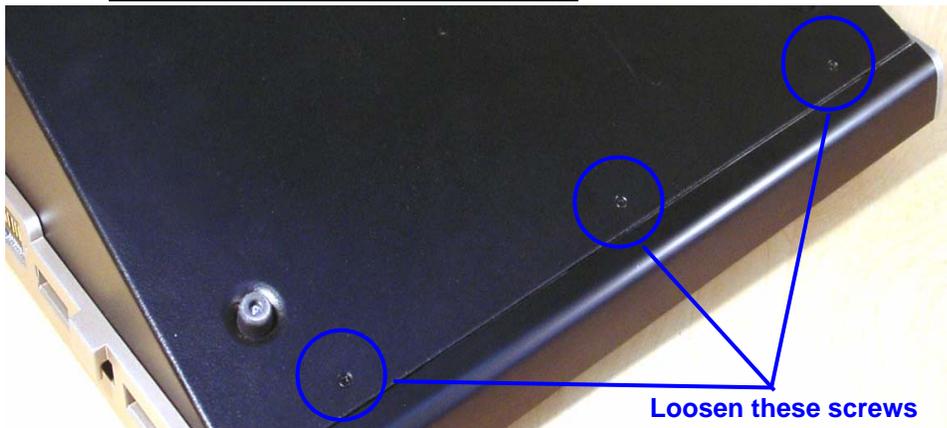


Remove these screws

Loosen these screws
2 full turns

- Step 4: Carefully flip over the console and loosen the 3 screws in **blue** below:

NOTE: DO NOT remove the 3 screws.



Loosen these screws

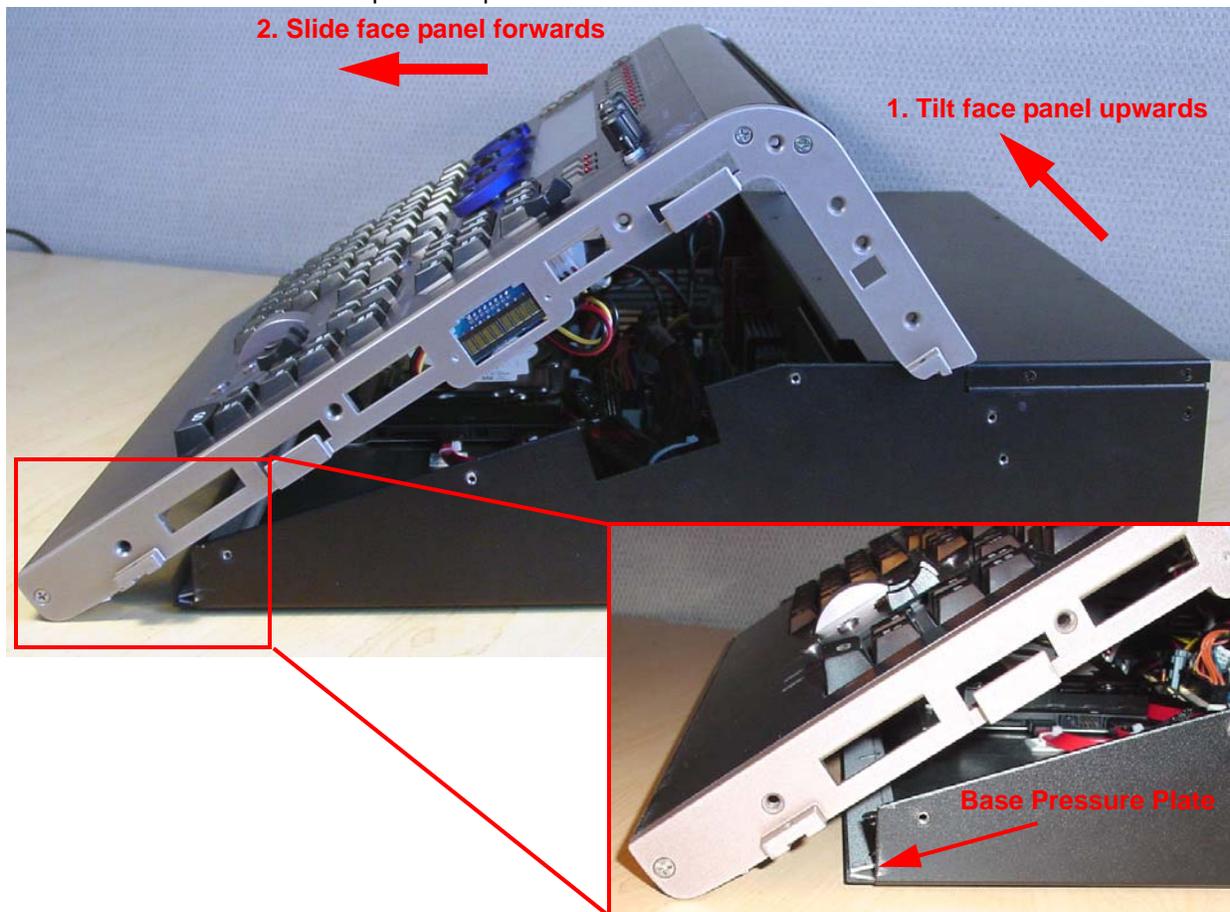


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ETC Service Note

Congo™ jr DMX Driver Chip Replacement

- Step 5: Flip the console back onto the base.
- Step 6: Lift the back side of the face panel upwards away from the base.
- Step 7: Slide the face panel towards the front of the console. The face panel will slip under the base pressure plate.



- Step 8: Rest the face panel off to the left side of the base unit. (The side with the DMX connectors) There is no need to remove the face panel cables when replacing the DMX connectors.
- Step 9: Remove all 4 screws from both sides of the base.



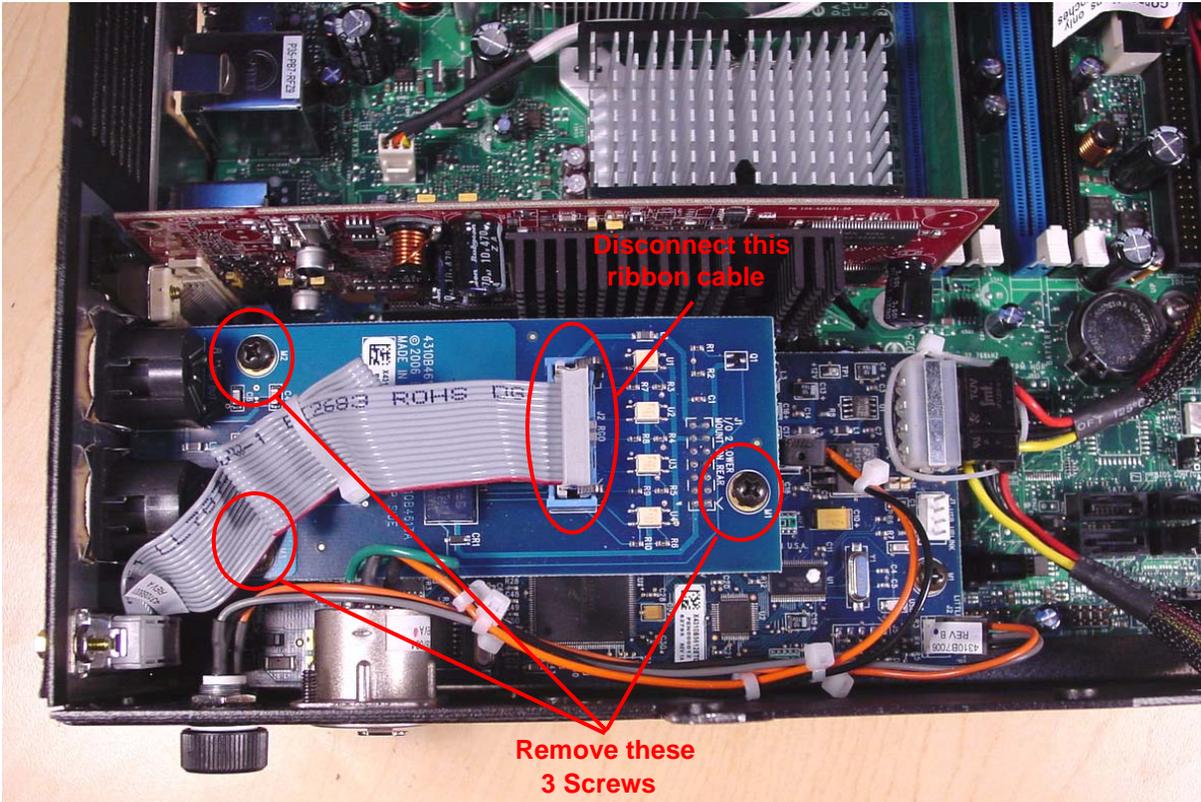
ETC Service Note

Congo™ jr DMX Driver Chip Replacement

Step 10: Remove the base cover, and set aside.

Step 11: Locate the MIDI riser card near the Video Card, and above the DMX I/O Card.

Step 12: Remove the ribbon cable from the MIDI riser card, and remove the 3 screws.



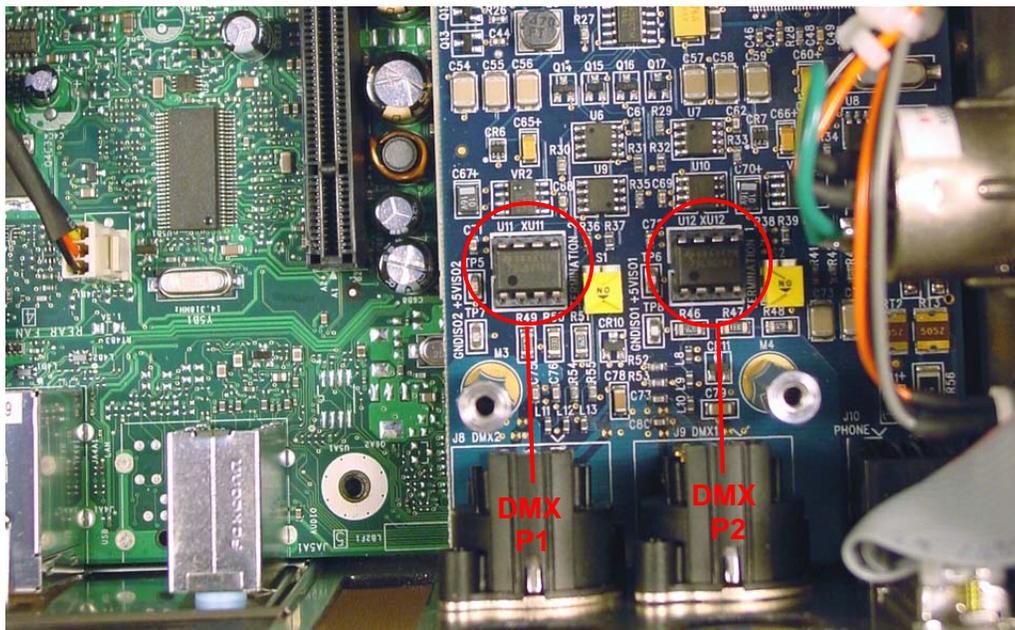
Step 13: Lift up on 2 sides of the MIDI card being careful not to bend any of the pins below the card.

Step 14: Set the MIDI card aside.

Step 15: Locate either DMX Driver Chip:

U11 - DMX Port 1

U12 - DMX Port 2

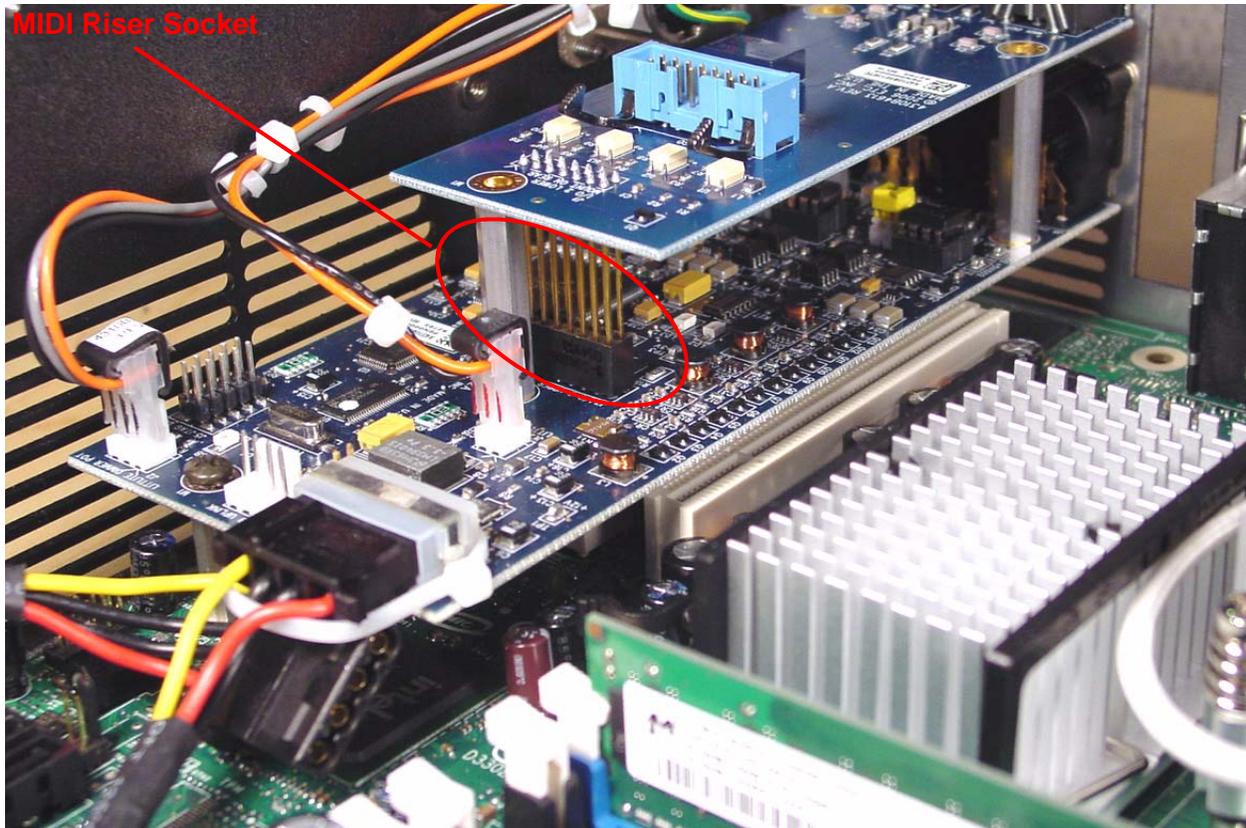


ETC Service Note

Congo™ jr DMX Driver Chip Replacement

Step 16: Replace the desired DMX driver chip. (75LBC182) ETC Part Number Z1458-F.

Step 17: Re-connect the MIDI riser card to the DMX I/O card. Line up all 14 pins with the I/O socket. Once the pins are aligned, gently push down on the MIDI riser card to seat it into the socket.

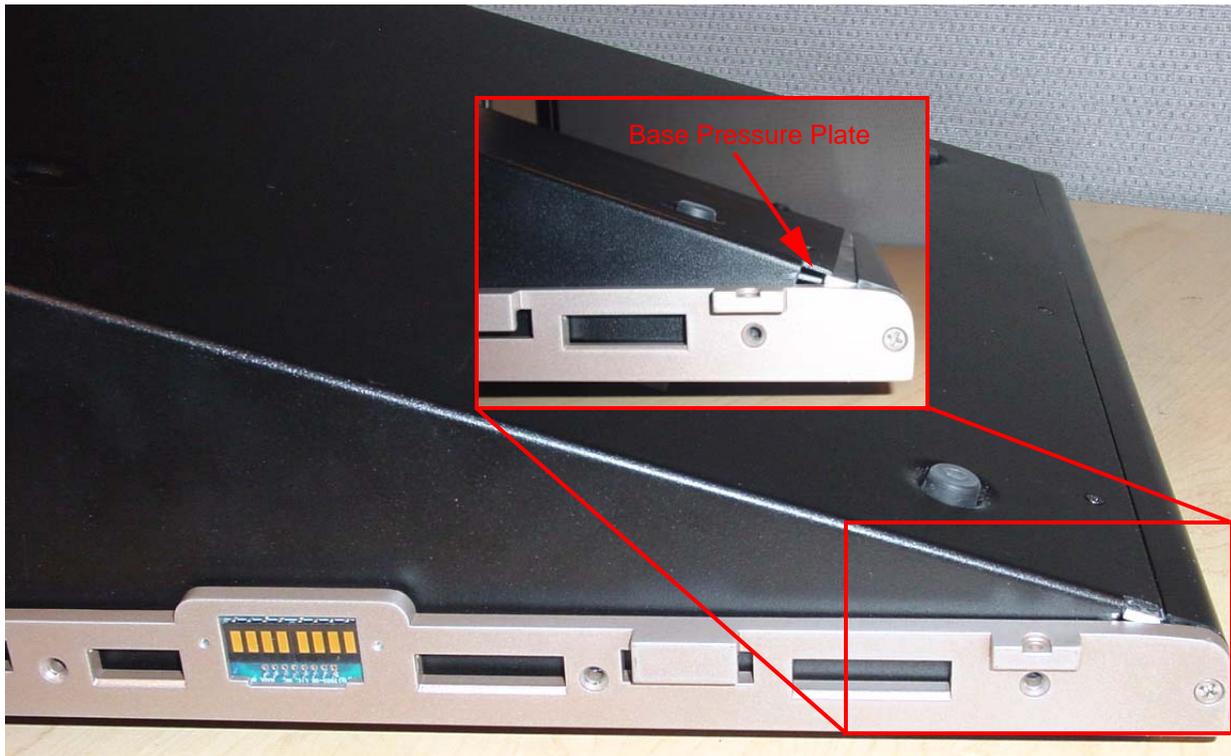


Step 18: Place the base cover back onto the base of the console and re-attach all 4 screws.

ETC Service Note

Congo™ jr DMX Driver Chip Replacement

Step 19: Slide the face panel back under the base pressure plate.



Step 20: Re-attach all 7 screws from each side of the console face panel.

Step 21: Flip the face panel over and tighten the 3 screws on the base of the console.

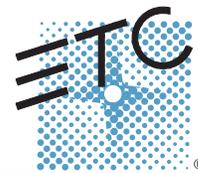
Step 22: Power the console up and verify correct console operation and verify DMX outputs on both ports.

ETC Service Note

Congo™ jr DMX Driver Chip Replacement

ETC® Service Note

Congo™ jr Power Supply Replacement



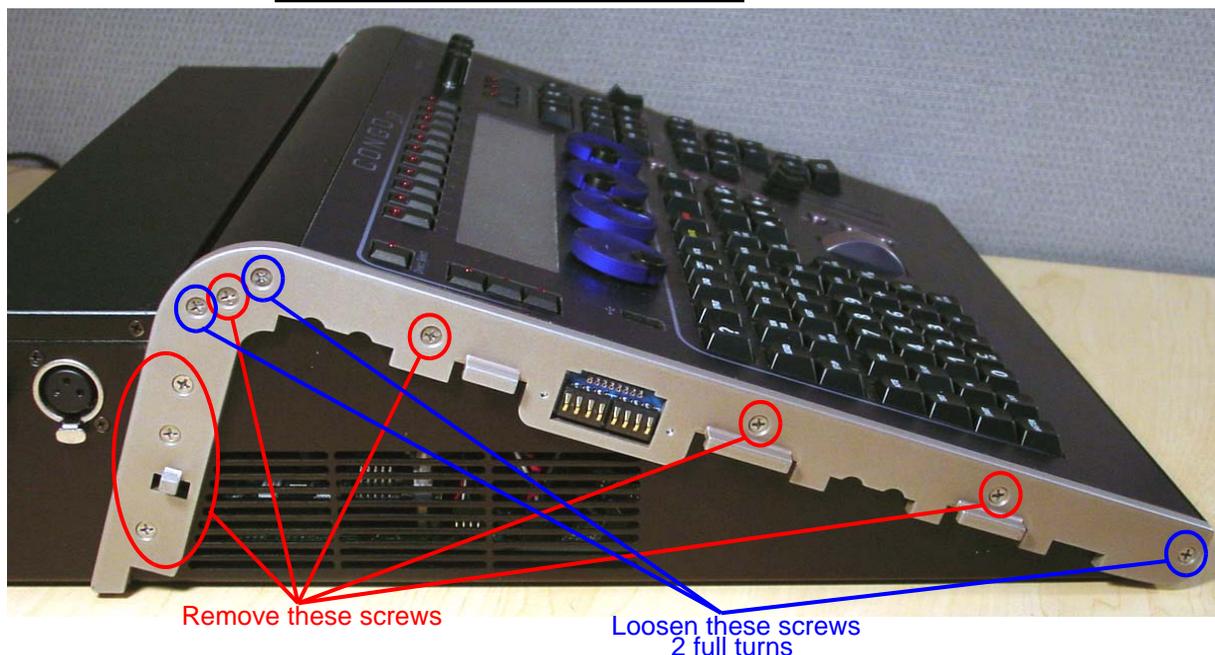
Tools Required:

- #2 Phillips Screwdriver
- #1 Phillips Screwdriver
- Side Cutter
- 4 Replacement zip ties

Procedure:

- Step 1: Remove the protective side panels from the Congo jr Console.
- Step 2: Remove the 7 screws indicated in **Red** below.
- Step 3: Loosen the 3 screws indicated in **Blue** below.

NOTE: DO NOT remove the 3 screws.



- Step 4: Carefully flip over the console and loosen the 3 screws in **blue** below:

NOTE: DO NOT remove the 3 screws.

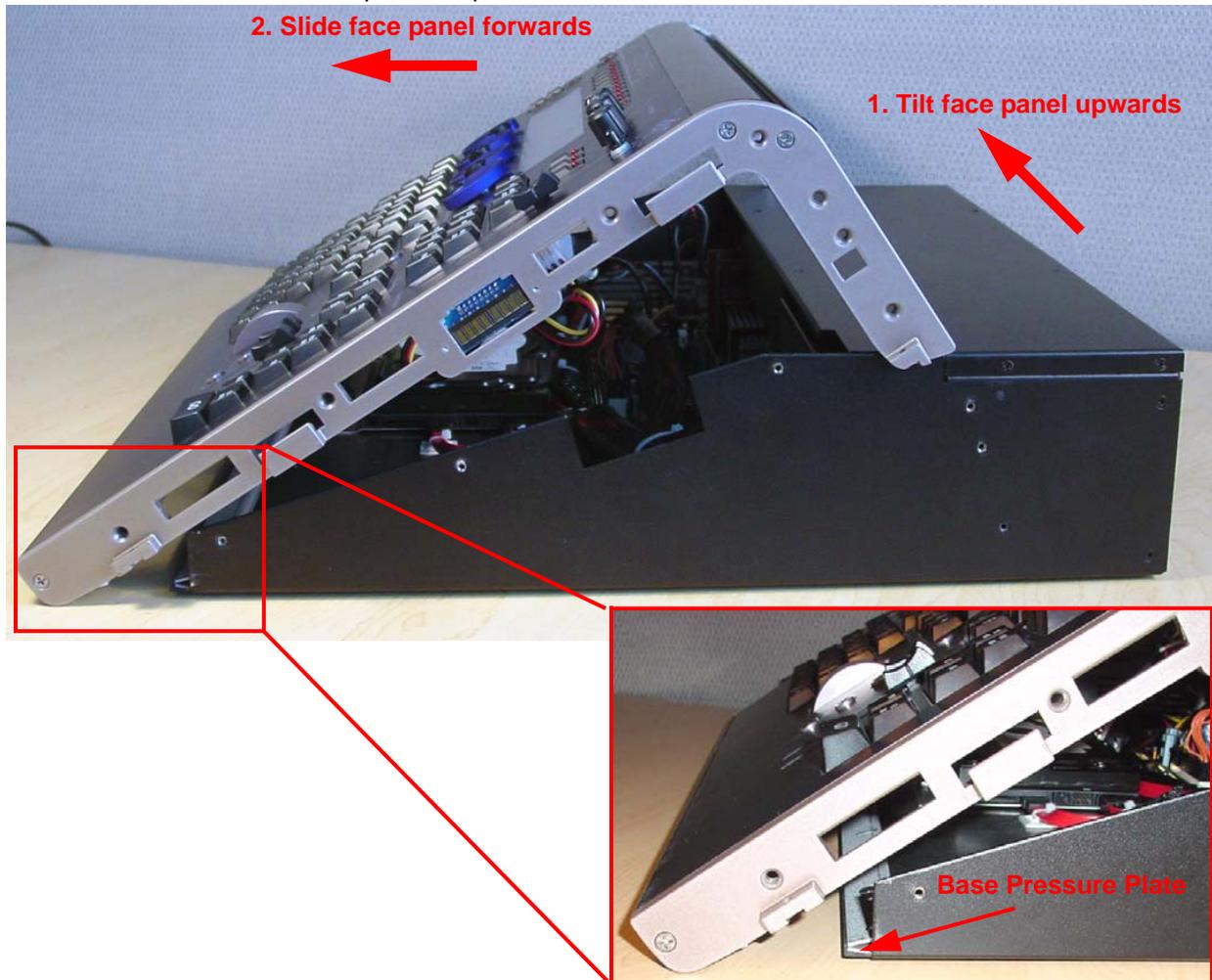


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ETC Service Note

Congo™ jr Power Supply Replacement

- Step 5: Flip the console back onto the base.
- Step 6: Lift the back side of the face panel upwards away from the base.
- Step 7: Slide the face panel towards the front of the console. The face panel will slip under the base pressure plate.



- Step 8: Rest the face panel off to the left side of the base unit. (the side with the DMX connectors) There is no need to remove the face panel cables when replacing the power supply.
- Step 9: Remove all 4 screws from both sides of the base.



Remove these screws (located on the side of chassis)

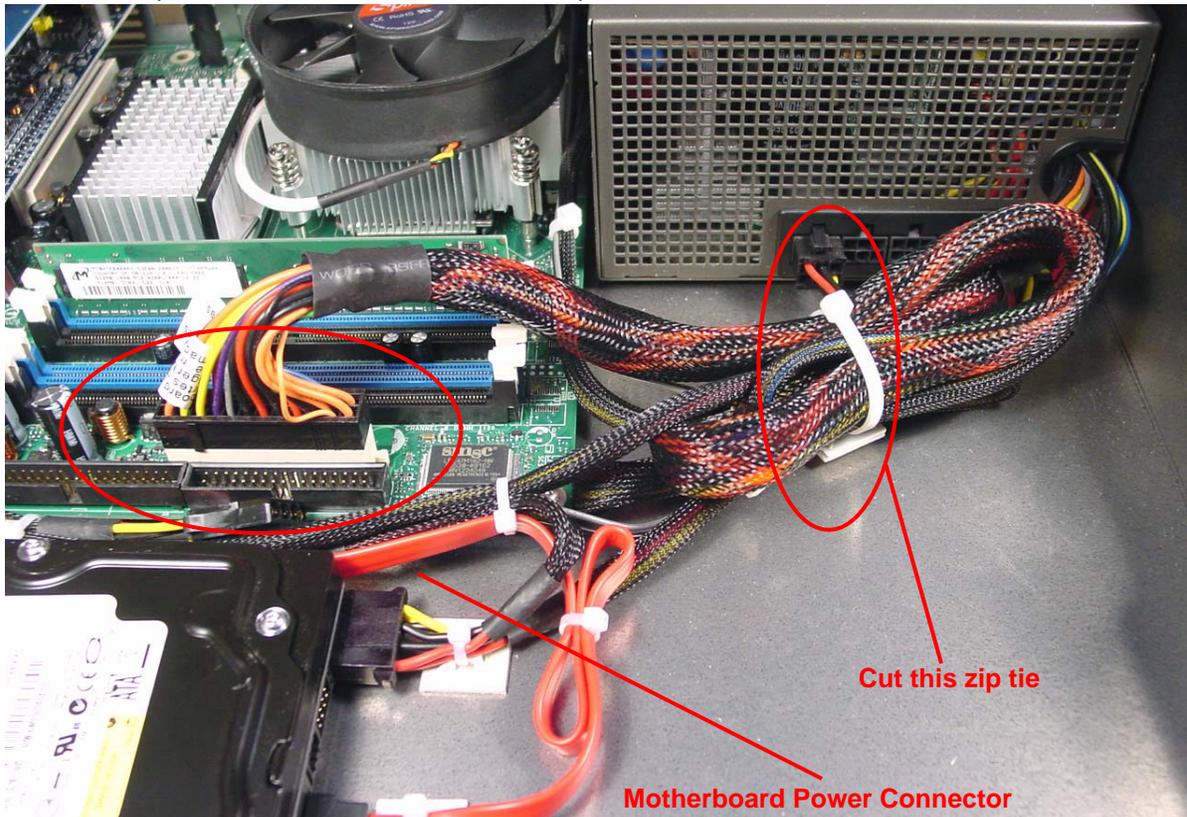
ETC Service Note

Congo™ jr Power Supply Replacement

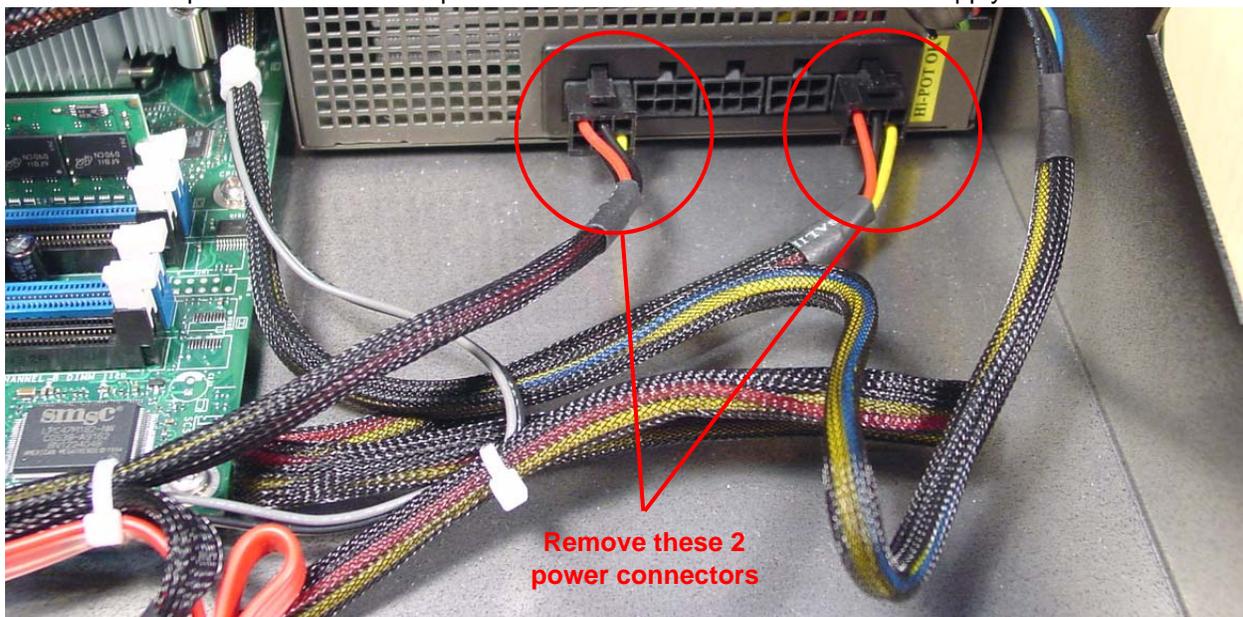
Step 10: Remove the base cover and set aside.

Step 11: Locate the Power Supply and cut the zip tie around the large bundle of cable.

Step 12: Disconnect the motherboard power connector.



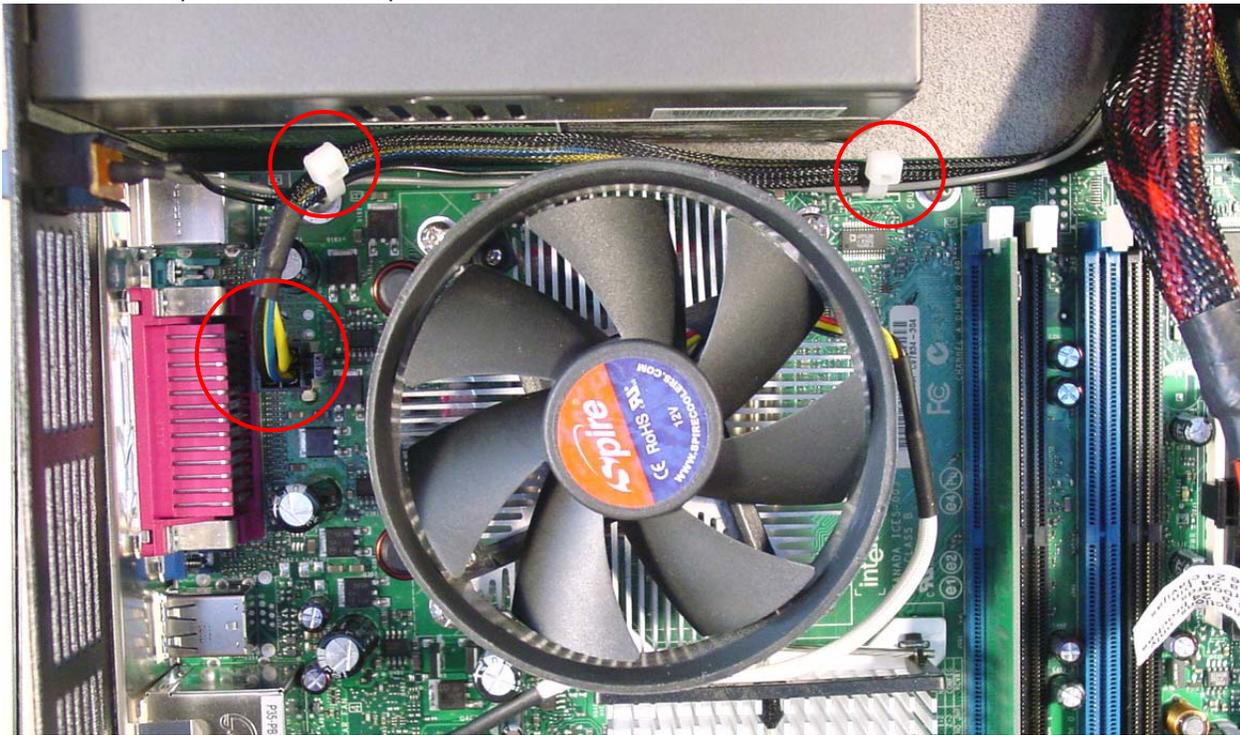
Step 13: Remove the 2 power connectors attached to the Power Supply.



ETC Service Note

Congo™ jr Power Supply Replacement

Step 14: Cut both zip-ties and disconnect the Motherboard Aux Power.



Step 15: Remove the 4 Screws holding the Power Supply in place.



Remove these 4 screws

Step 16: Swap out the power supply for a new power supply.

Step 17: Attach the power supply by screwing in the 4 screws from the back of the console.

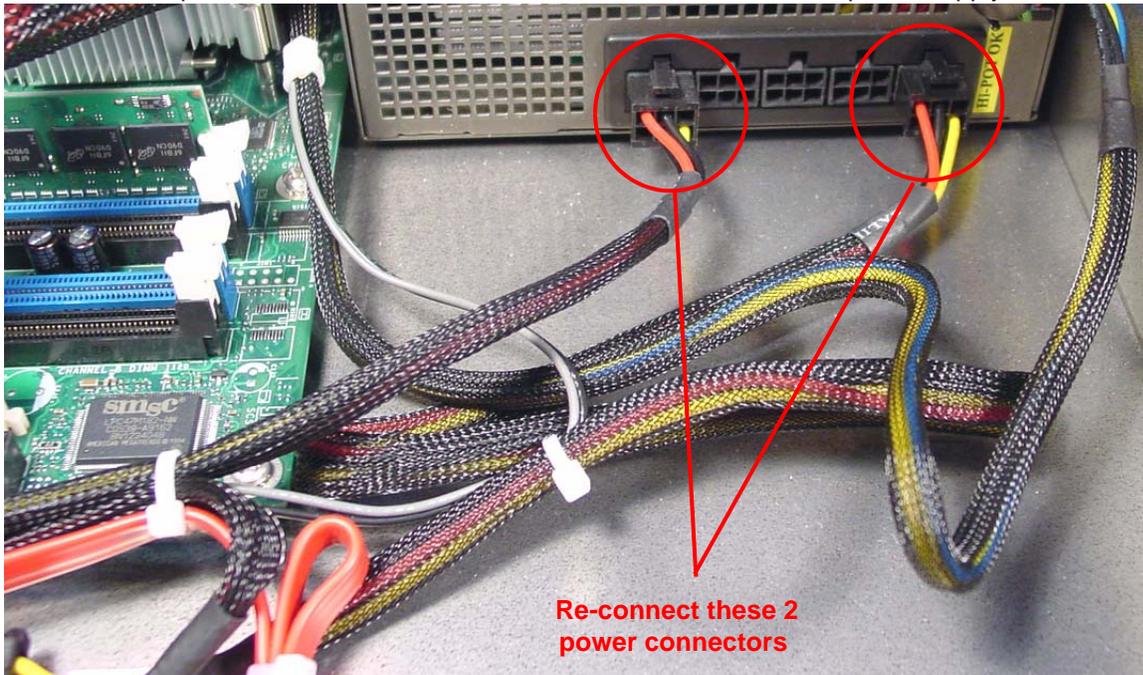
Step 18: Re-connect the 12v motherboard aux power.

Step 19: Place 2 zip-ties around the 12v motherboard aux power supply and the soft power switch cables.

ETC Service Note

Congo™ jr Power Supply Replacement

Step 20: Re-connect the 2 Power connectors back into the power supply.

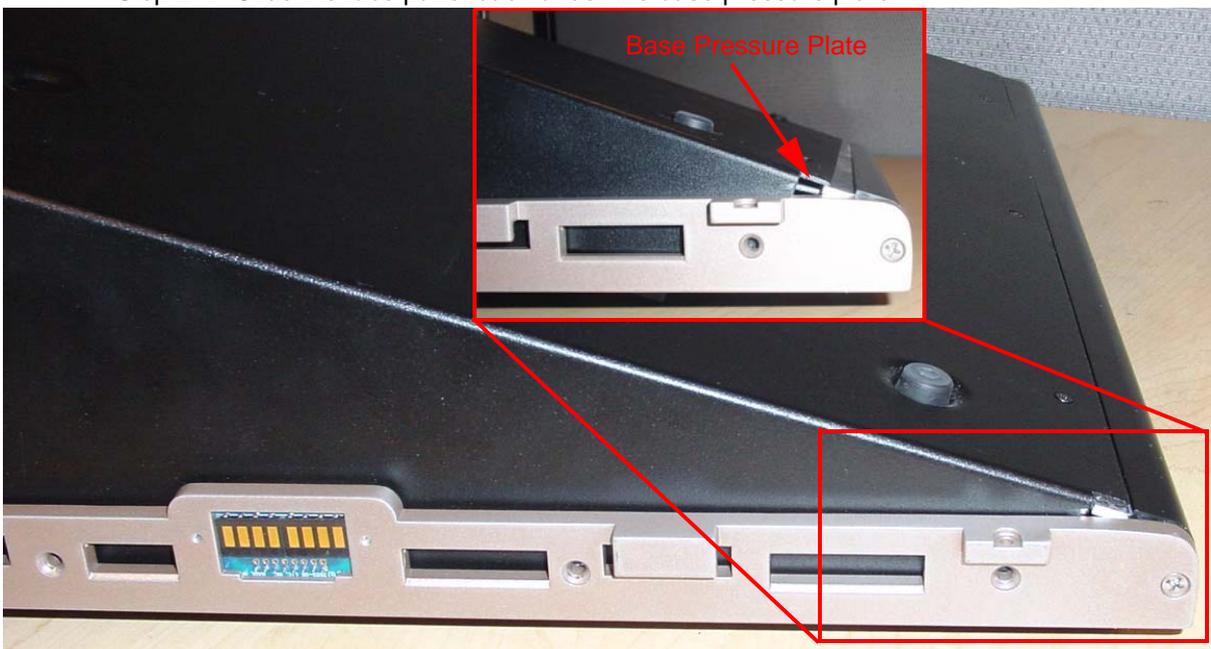


Step 21: Re-connect the large Motherboard connector into the Motherboard.

Step 22: Place a 4" zip-tie around the large bundle of wire and thru the sticky back on the base of the console.

Step 23: Place the base cover back onto the base of the console and re-attach all 4 screws.

Step 24: Slide the face panel back under the base pressure plate.



Step 25: Re-attach all 7 screws from each side of the console face panel.

Step 26: Flip the face panel over and tighten the 3 screws on the base of the console.

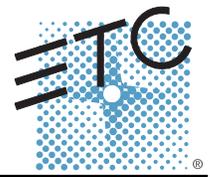
Step 27: Power the console up and verify correct face panel operation and LCD screen operation.

ETC Service Note

Congo™ jr Power Supply Replacement

ETC® Service Note

Congo™ jr Main Board Replacement



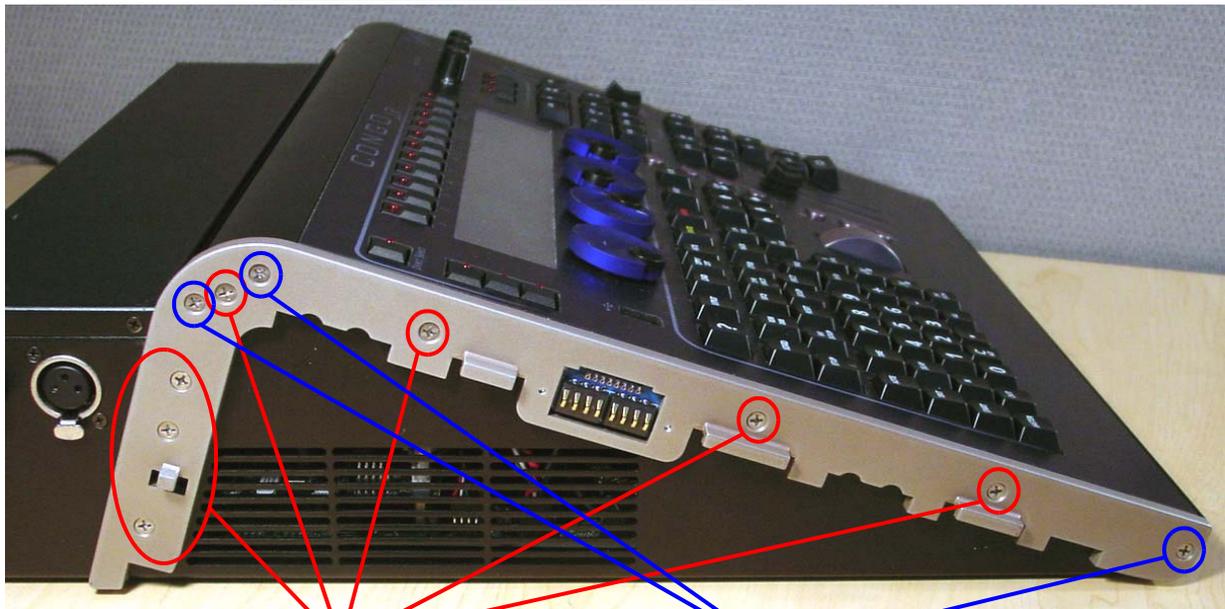
Tools Required:

- #2 Phillips Screwdriver
- #1 Phillips Screwdriver
- Side Cutter
- Needle Nose Pliers
- 5/16" nut driver
- Right angle hex key (0.050)
- 4" Replacement zip ties

Procedure:

- Step 1: Remove the protective side panels from the Congo JR Console.
- Step 2: Remove the 7 screws indicated in **Red** below.
- Step 3: Loosen the 3 screws indicated in **Blue** below.

NOTE: DO NOT remove the 3 screws.



Remove these screws

Loosen these screws
2 full turns



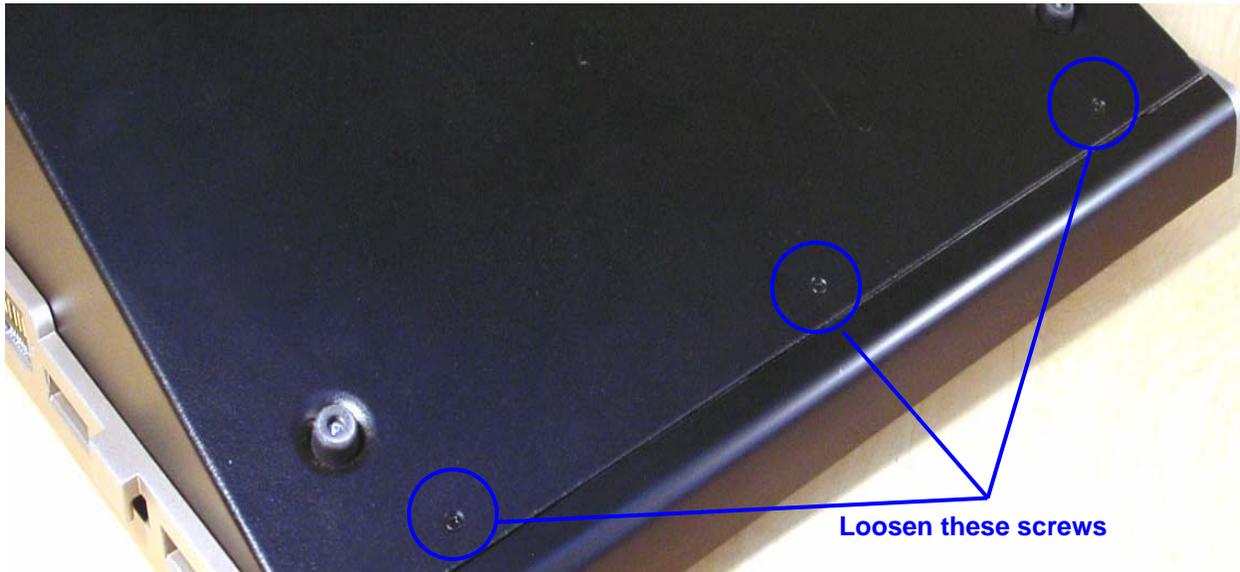
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Congo™ jr Main Board Replacement

Step 4: Carefully flip over the console and loosen the 3 screws in blue below:

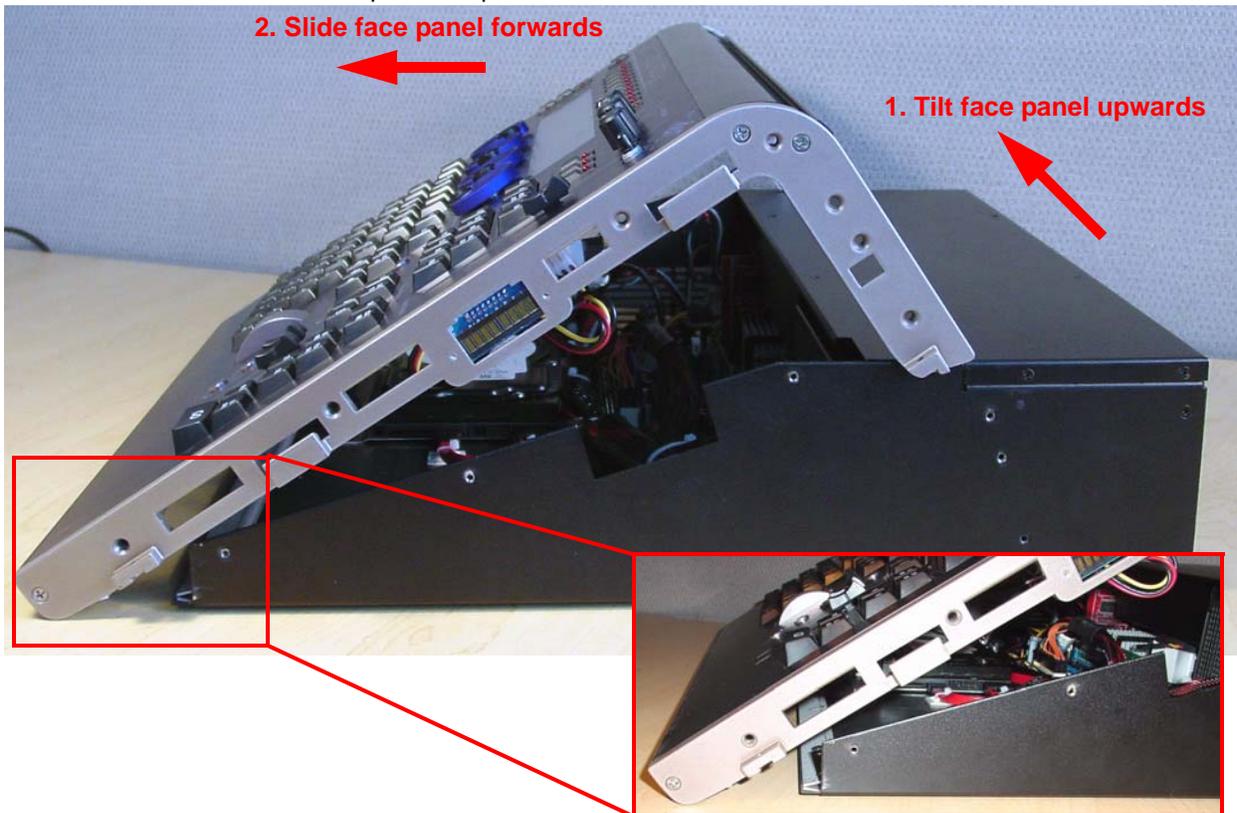
NOTE: DO NOT remove the 3 screws.



Step 5: Flip the console back onto the base.

Step 6: Lift the back side of the face panel upwards away from the base.

Step 7: Slide the face panel towards the front of the console. The face panel will slip under the base pressure plate.

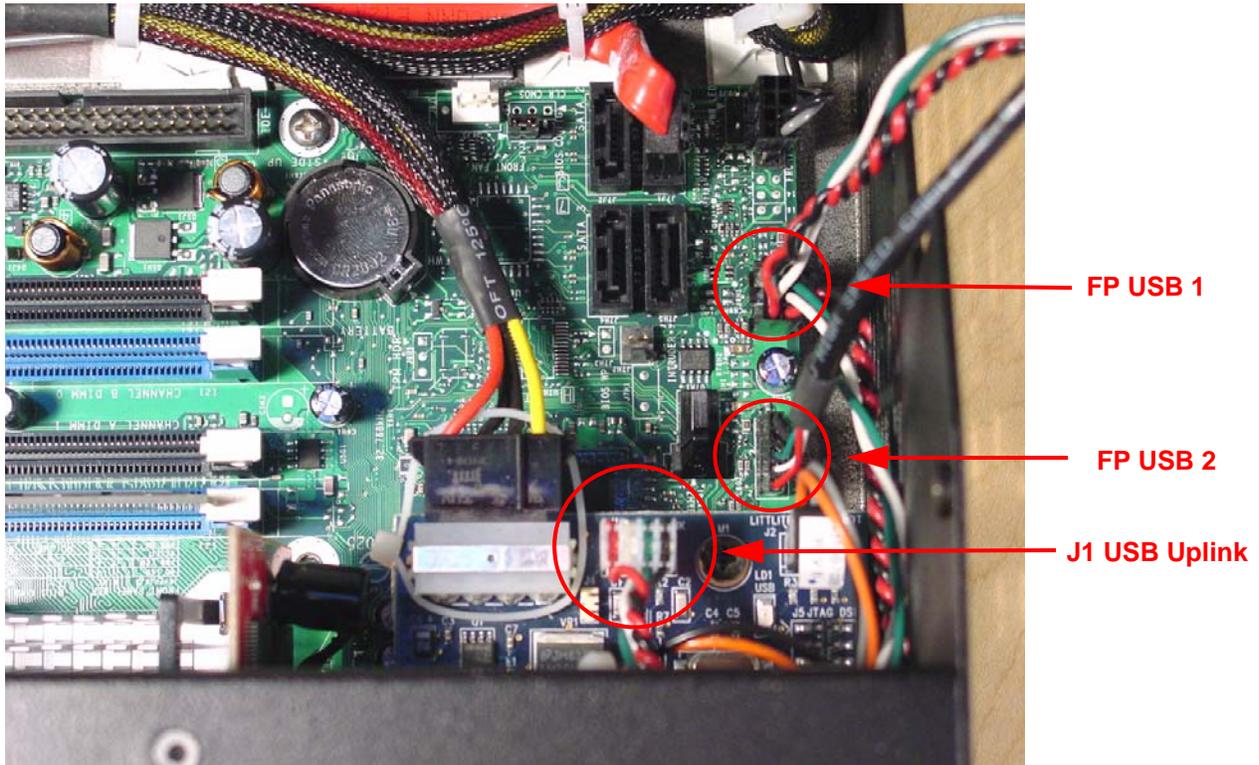


ETC Service Note

Congo™ jr Main Board Replacement

Step 8: Disconnect the J1 USB uplink from the I/O Card

Step 9: Disconnect the face panel USB 1&2 connectors from the Congo jr motherboard.

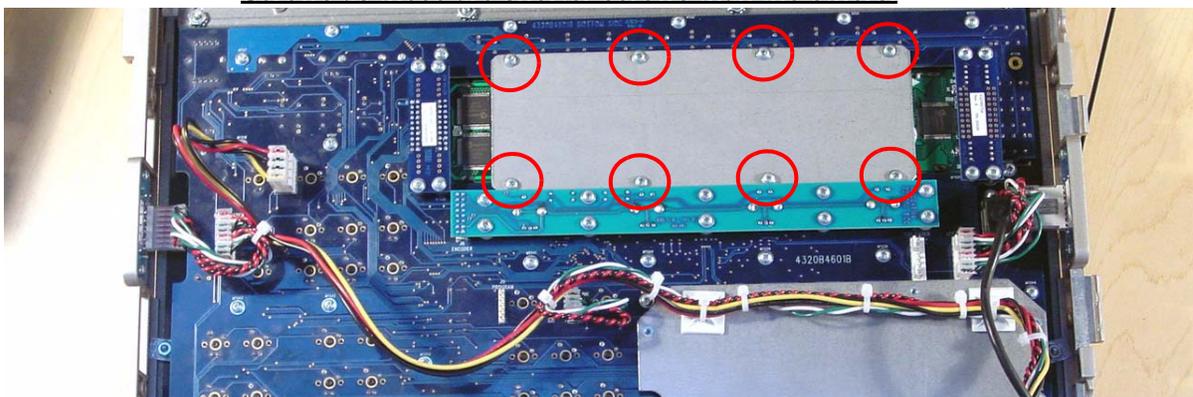


Step 10: Clip the zip ties holding the face panel cables to the base of the unit.

Step 11: Carefully set the Congo jr face panel face down exposing the back side of the face panel PCB.

Step 12: Remove the 8 short screws from the LCD pressure plate.

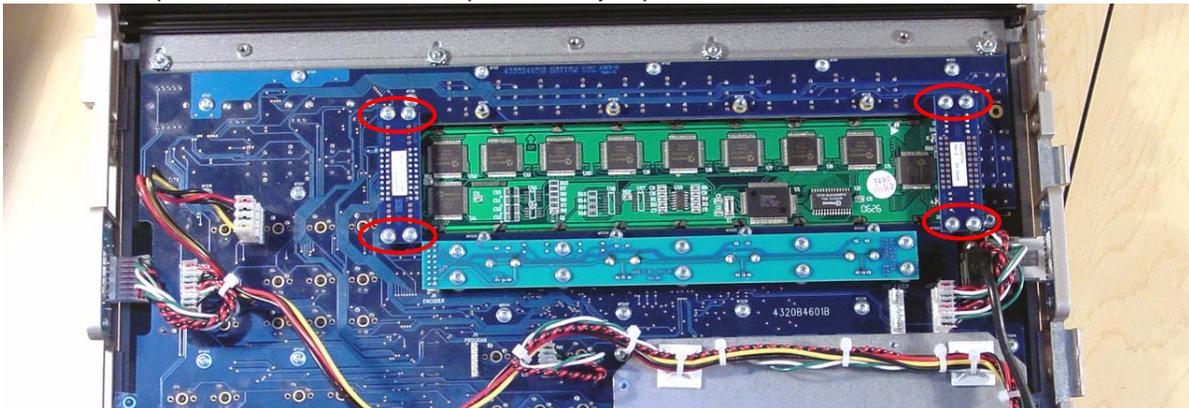
NOTE: Be sure that you keep these 8 screws separated from the other FP Screws as these are shorter screws than the others.



ETC Service Note

Congo™ jr Main Board Replacement

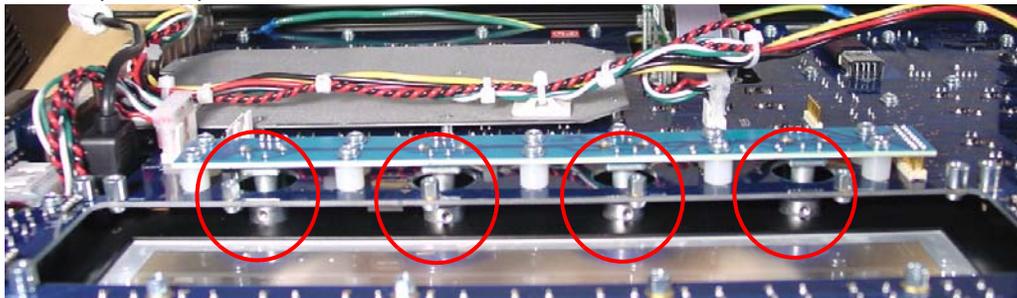
Step 13: Remove the 8 face panel LCD jumper screws



Step 14: Lightly lift each side of the LCD screen socket circuit board to remove the LCD screen from the Congo jr face panel and set it aside.

Step 15: With the LCD screen removed from the face panel, you can now access the encoder knob shafts.

Step 16: Spin the encoder shaft until the hex nut is visible.



Step 17: Loosen the hex nut until the encoder falls from the shaft.



Step 18: Flip the face panel back over exposing the keypad and faders.

Step 19: Lift up the Independents, and BO, ON, FREEZE knob caps.

NOTE: You can lift these caps up with the tip of your fingernail.

Step 20: Once you expose the inside of the knob, you can remove it by loosening the internal nut inside the knob with the 5/16" nut driver.

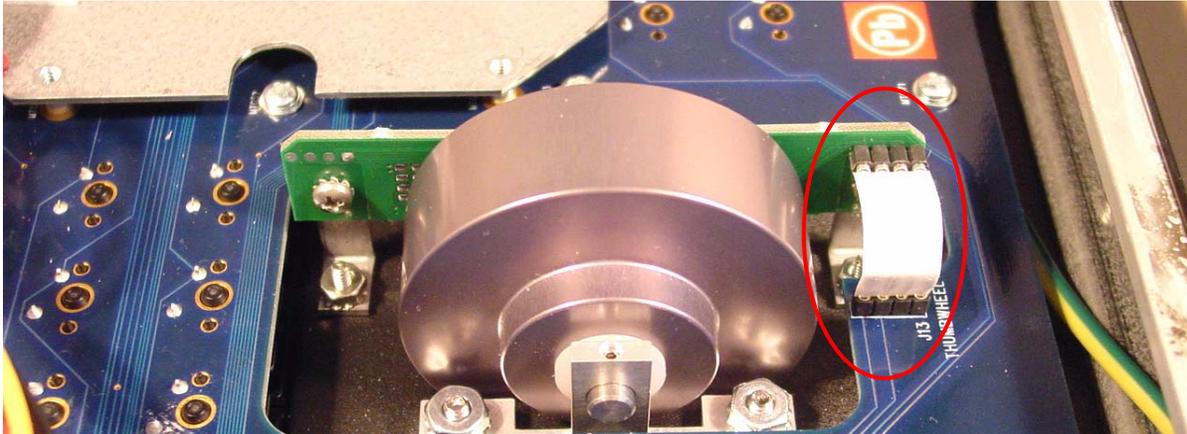
Step 21: Remove the 3 fader caps from the Grandmaster and A/B Fader Pair.

Step 22: Flip the face panel back over on the front side.

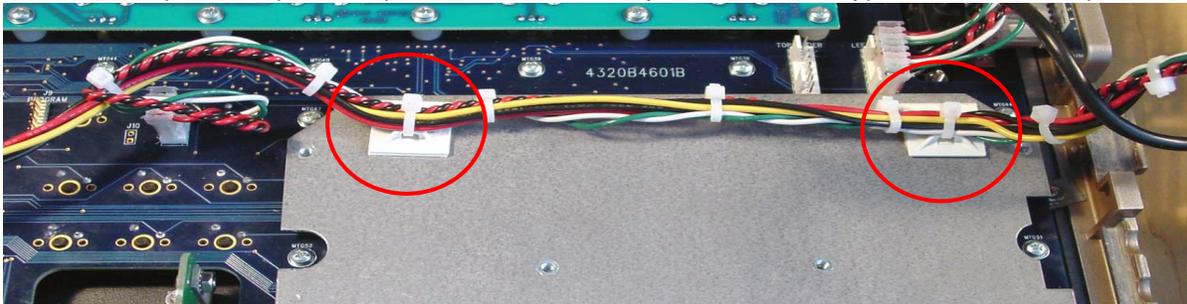
ETC Service Note

Congo™ jr Main Board Replacement

Step 23: Remove the level wheel ribbon cable from the encoder board.

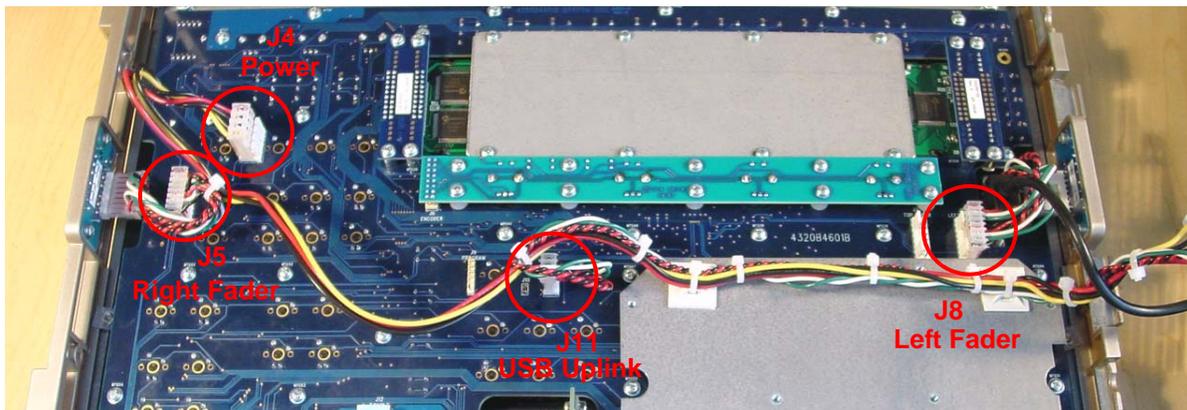


Step 24: Clip the 2 zip ties attached to sticky backs on the keypad reinforcement plate.



Step 25: Disconnect the following headers from the motherboard.

- J5 - Right Fader
- J8 - Left Fader
- J11 - USB Uplink
- J4 - Power



Step 26: Set the face panel wire harness aside.

Step 27: Remove all 32 screws holding the face panel main board in place.

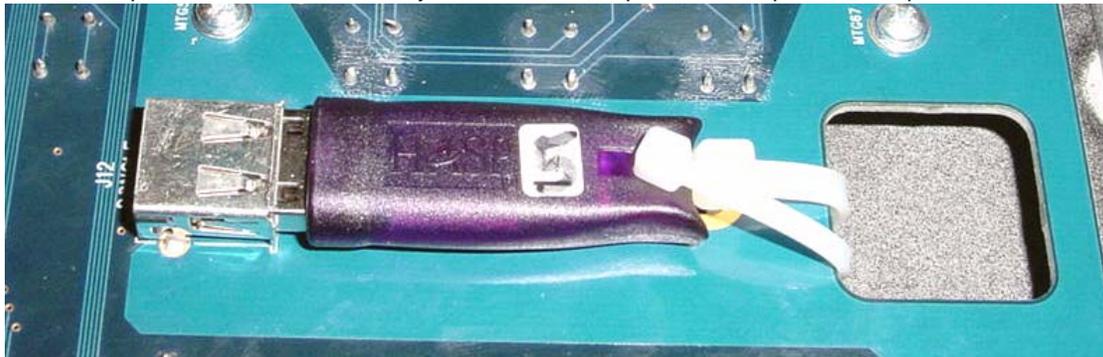
Step 28: Swap out the main board for the new one.

Step 29: Clip the zip ties from the USB key attached to the old board.

ETC Service Note

Congo™ jr Main Board Replacement

Step 30: Move the USB key to the new face panel and replace the zip tie.



Step 31: Replace all 32 screws that hold the face panel motherboard in place.

Step 32: Re-connect the encoder board and encoders.

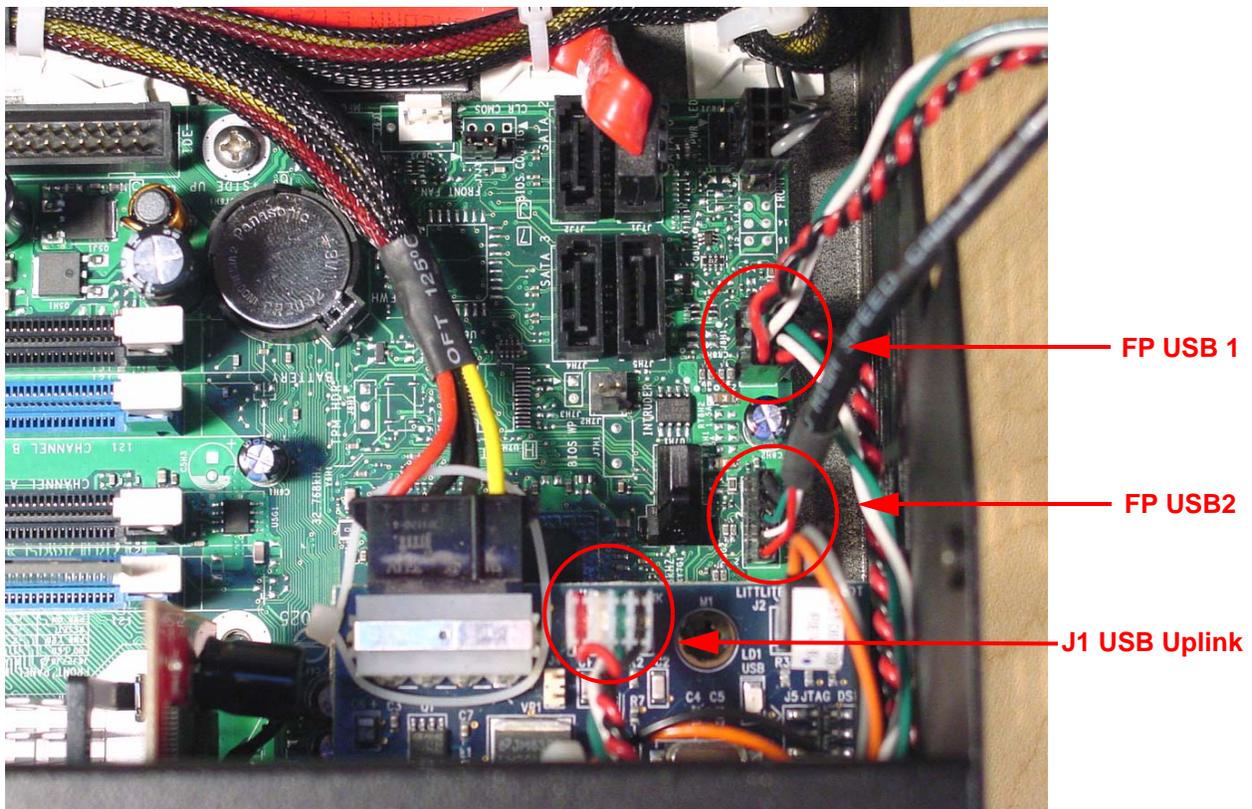
Step 33: Re-connect the LCD screen, screws, and pressure plate.

Step 34: Re-connect the level wheel ribbon cable.

Step 35: Connect the J4, J5, J8, J11 connectors back on the main board.

Step 36: Place 2 zip ties around the face panel wire harness through the sticky backs. Trim off the excess zip tie tails.

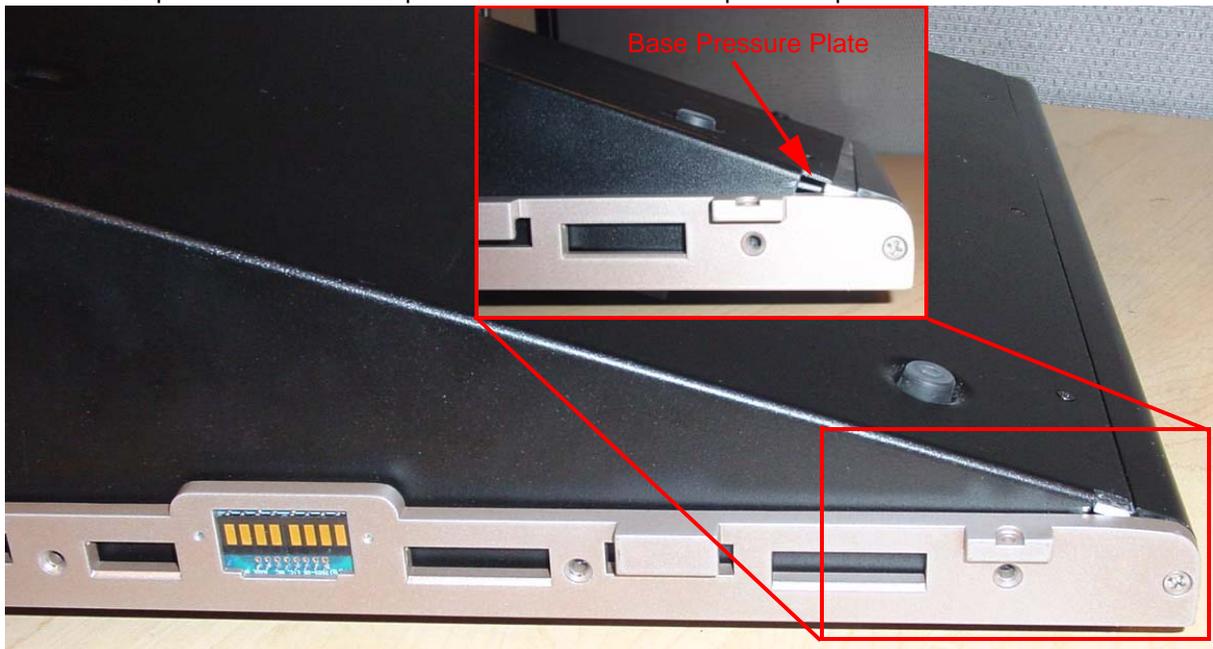
Step 37: Re-attach the USB connectors to the motherboard.



ETC Service Note

Congo™ jr Main Board Replacement

Step 38: Slide the face panel back under the base pressure plate.



Step 39: Re-attach all 7 screws from each side of the console face panel.

Step 40: Flip the face panel over and tighten the 3 screws on the base of the console.

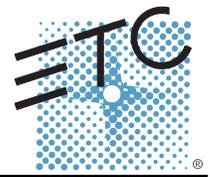
Step 41: Power the console up and verify correct console operation.

ETC Service Note

Congo™ jr Main Board Replacement

ETC® Service Note

Congo™ jr Master Wing LCD Replacement



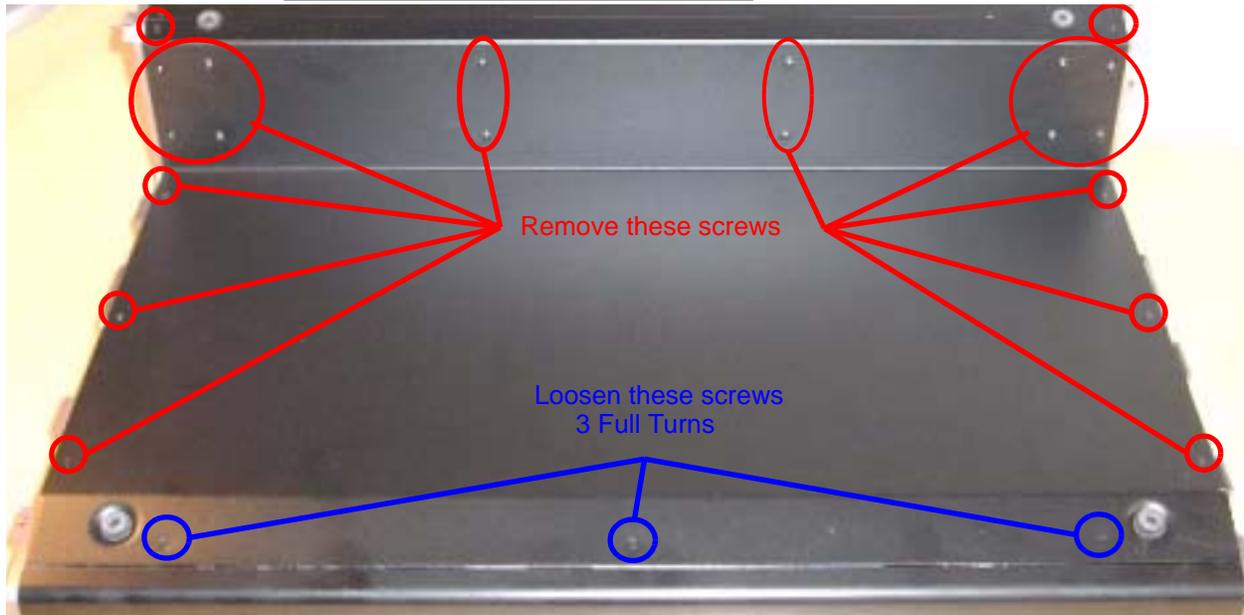
Tools Required:

- #1 Phillips Screwdriver
- Soldering Iron
- Lead Free Solder

Procedure:

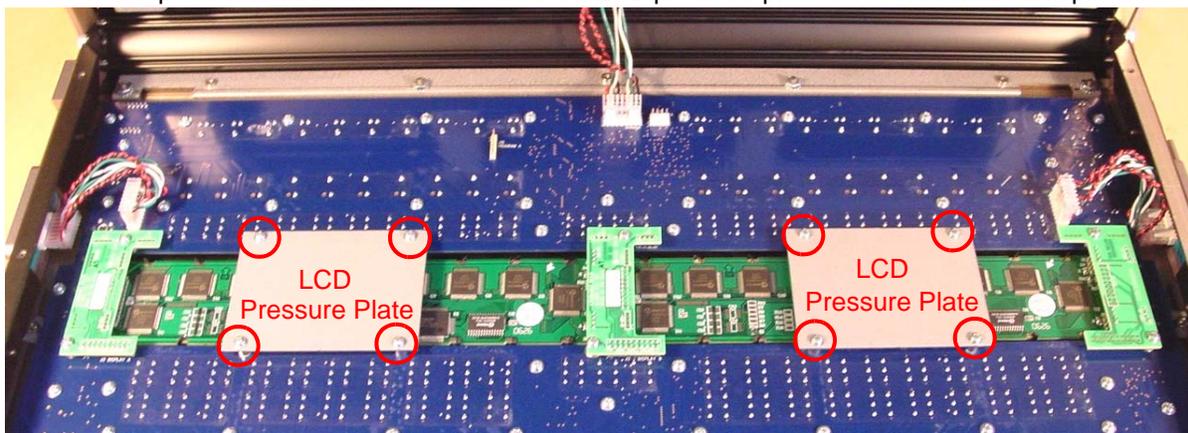
- Step 1: Remove the protective side panels from the Congo jr Master Wing.
- Step 2: Place the master wing face down exposing the back side.
- Step 3: Remove the 20 screws indicated in **Red** below.
- Step 4: Loosen the 3 screws indicated in **Blue** below.

NOTE: DO NOT remove the 3 screws.



Step 5: Remove the master wing bottom plate and set it aside.

Step 6: Remove the 8 screws from the LCD pressure plates. Set the screws and plates aside.

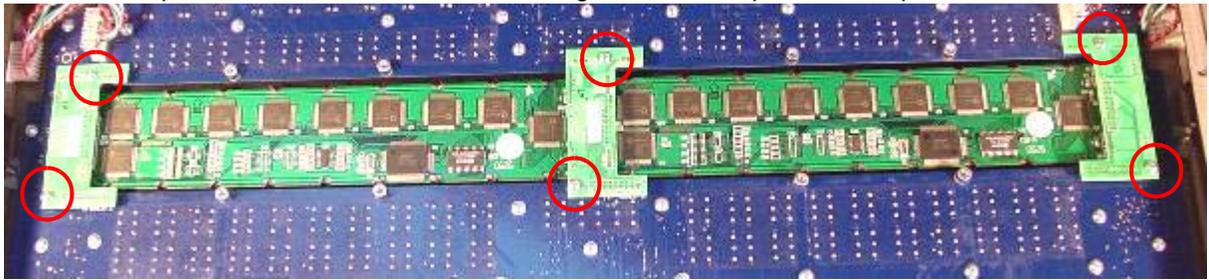


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ETC Service Note

Congo™ jr Master Wing LCD Replacement

Step 7: Remove the 6 screws holding the LCD Jumper board in place.

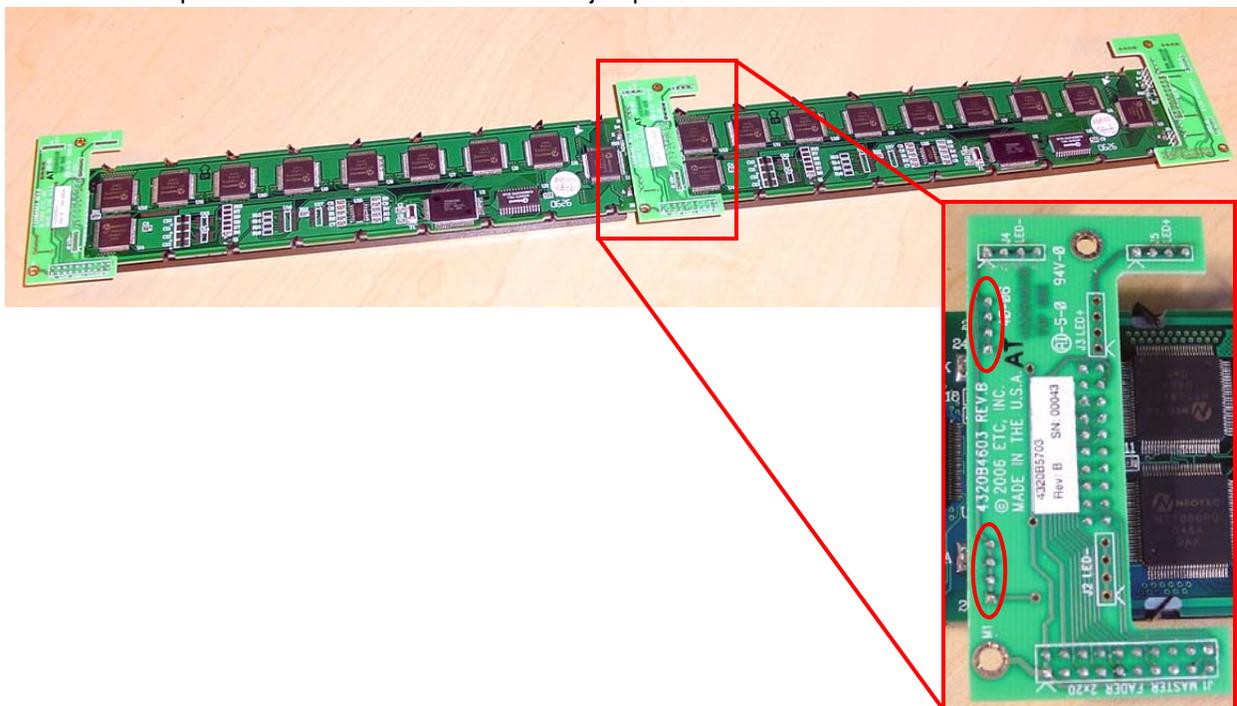


Step 8: Gently lift up all 3 Master LCD jumper boards; removing all the pins from each socket.

Step 9: Lift both LCD screens from the center and gently lift the screens away from the master wing.

Step 10: Set the pair of LCD screens aside.

Step 11: De-solder the below-circled jumpers to disconnect the 2 LCD screens.



Step 12: Replace the Left or Right LCD screen w/ the LCD Jumper pre-soldered. Line up the above pictures 8 pins and solder the 2 LCD screens

Step 13: Once the pins are aligned with the Master Wing Main Board, gently press each board into its socket.

Step 14: Secure each of the 6 screws back into the LCD jumper board, connecting them to the sandoffs.

Step 15: Place each of the LCD pressure plates back over the LCD screens and tighten all 8 screws back into the appropriate holes.

Step 16: Place the 2 LCD screens back into the Master Wing. Line up all of the pins on each of the 3 LCD jumper boards.

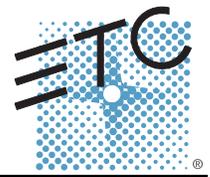
Step 17: Place the master wing bottom plate over the back side of the master wing face panel.

Step 18: Re-attach and tighten all 23 Screws.

Step 19: Connect the Master Wing to the console and run the face panel diagnostics tests to verify proper LCD, fader, and button operations.

ETC® Service Note

Congo™ jr Master Wing Main Board Replacement



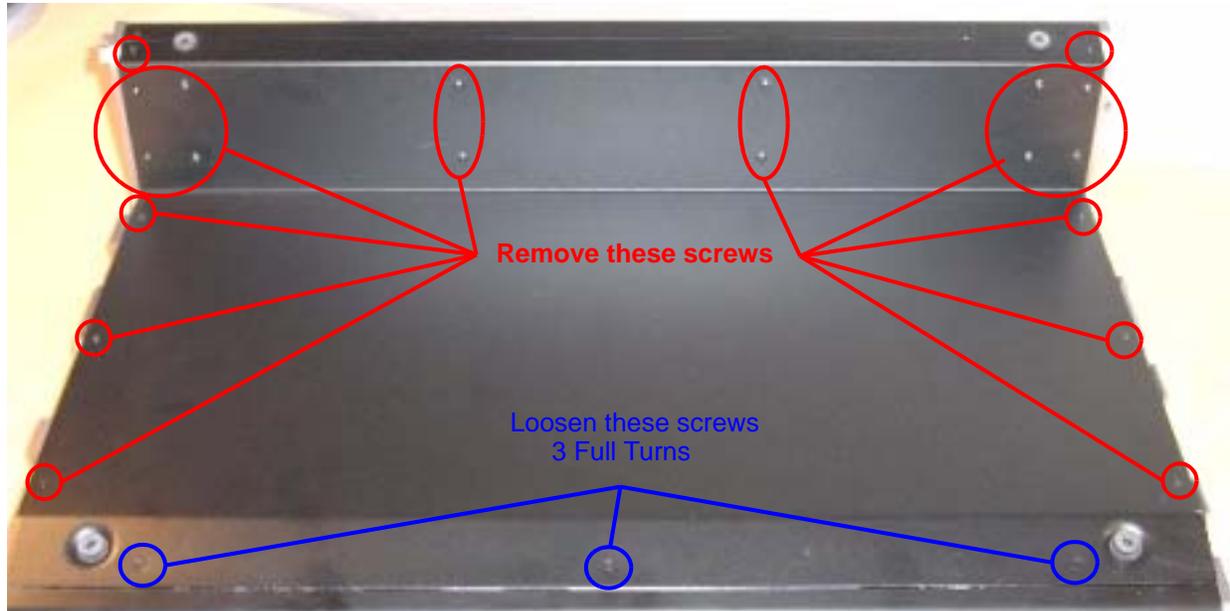
Tools Required:

#1 Phillips Screwdriver

Procedure:

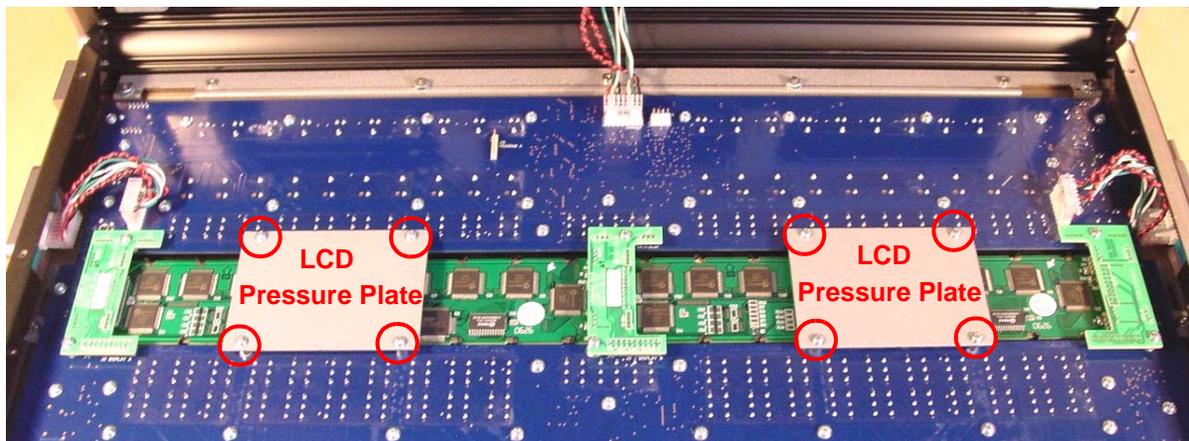
- Step 1: Remove the protective side panels from the Congo jr Master Wing.
- Step 2: Place the master wing face down exposing the back side.
- Step 3: Remove the 20 screws indicated in **Red** below.
- Step 4: Loosen the 3 screws indicated in **Blue** below.

NOTE: DO NOT remove the 3 screws.



Step 5: Remove the master wing bottom plate and set it aside

Step 6: Remove the 8 screws from the LCD Pressure Plates. Set the screws and plates aside.

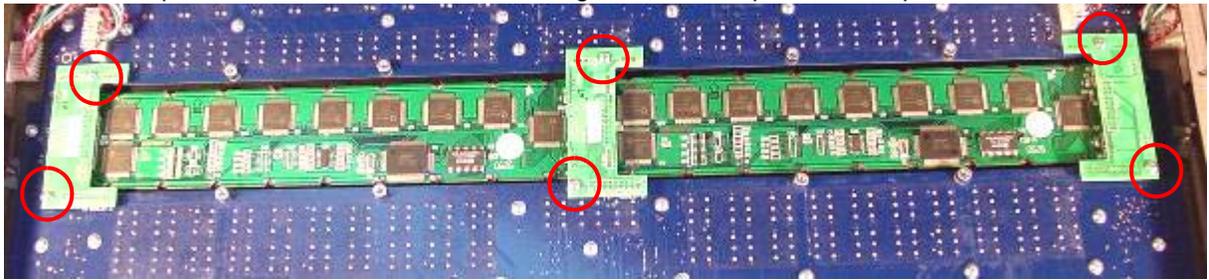


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ETC Service Note

Congo™ jr Master Wing Main Board Replacement

Step 7: Remove the 6 screws holding the LCD Jumper board in-place.

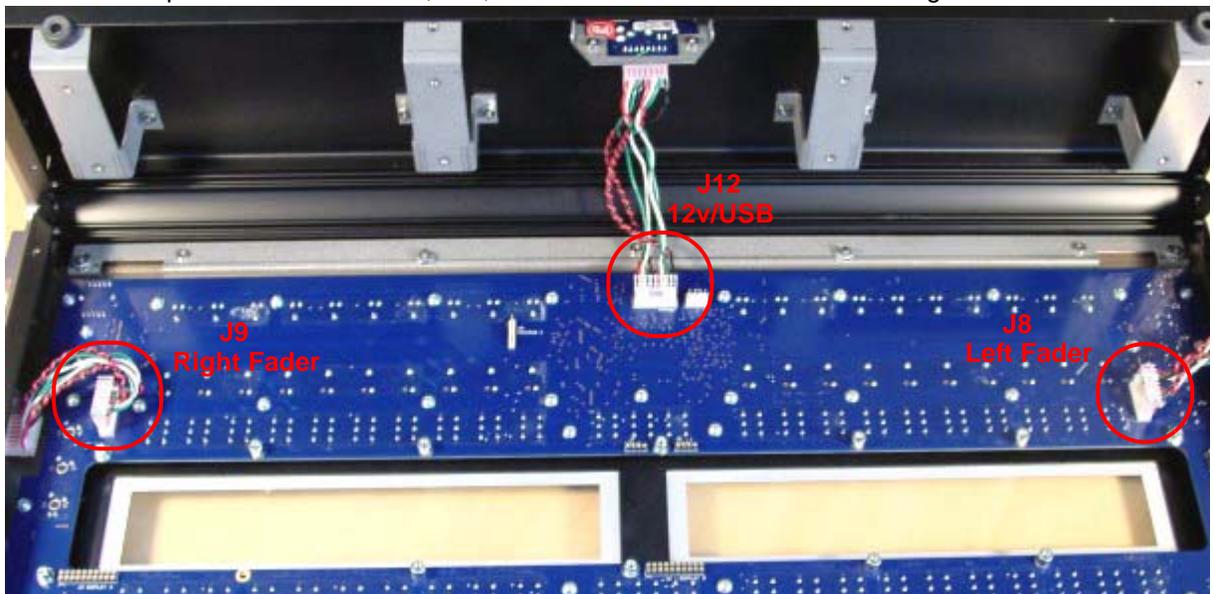


Step 8: Gently lift up all 3 Master LCD jumper boards; removing all the pins from each socket.

Step 9: Lift both LCD Screens from the center and gently lift the screens away from the master wing.

Step 10: Set the pair of LCD screens aside

Step 11: Remove the J9, J12, and J8 headers from the Master Wing Main Board.



Step 12: Remove all 50 #1 Phillips head screws from the mainboard.

Step 13: Swap out the Master Wing main board for the new board.

Step 14: Attach all 50 #1 Phillips head screws back into the master wing.

Step 15: Re-connect each of the J9, J12, and J8 headers at the master wing main board.

Note the cable orientation pictured above.

Step 16: Place the 2 screens back into the Master Wing. Line up all of the pins on each of the 3 LCD jumper boards.

Step 17: Once the pins are aligned with the Master Wing main board, gently press each board into the socket.

Step 18: Secure each of the 6 screws back into the LCD jumper board, connecting them to the standoffs.

Step 19: Place each of the LCD pressure plates back over the LCD Screens and place all 8 screws back into the appropriate holes.

Step 20: Place the Master Wing bottom plate over the back side of the Master Wing face panel. Re-attach and tighten all 23 Screws.

Step 21: Connect the Master Wing to the console and run the face panel diagnostics tests to verify proper LCD, fader, and button operations.

ETC[®] Service Note

Congo™ jr v4.3 I/O Software Code Installation



Description:

This service note describes how to install new I/O firmware for your Congo jr console. This version of firmware fixes a software bug that caused the DMX power supply to be under powered; resulting in flickering levels or loss of control of some DMX devices.

This firmware update should be performed after the 4.3 software installation.

Tools Needed:

- Computer
- Congo jr Console
- DVI Monitor, or VGA with DVI adapters
- USB Keyboard
- USB Mouse
- USB Flash Drive

Procedure:

- Step 1: Download the Congo jr firmware *Software.zip* from www.etcconnect.com
- Step 2: Insert USB Flash Drive into computer
- Step 3: Create a folder titled: **Software**
- Step 4: Unzip the *Software.zip* contents into the newly created "software" folder on the USB flash drive

Note: There are various .zip file extraction programs. When using windows XP, you do not need to create a folder. When you unzip the file, Windows will automatically create a folder titled "software." To open the Windows extraction wizard, right click on the file and select "Extract All"



Use the Windows extraction wizard to extract the files to your USB Stick.

- Step 5: Remove this drive from the computer
- Step 6: Connect keyboard and mouse to the Congo jr
- Step 7: Turn the Congo jr Console on
- Step 8: Insert the USB flash drive into the Congo jr



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ETC Service Note

Congo™ jr v4.3 I/O Software Code Installation

Step 9: At the Main login Screen, click on the System Settings button



Step 10: The following window will pop up:



Step 11: Click on the software update button

Step 12: The following window will pop up:



ETC Service Note

Congo™ jr v4.3 I/O Software Code Installation

Step 13: Wait until the window displays "**Please load Firmware File**"

Note: It may take up to 10 seconds for this message to be displayed

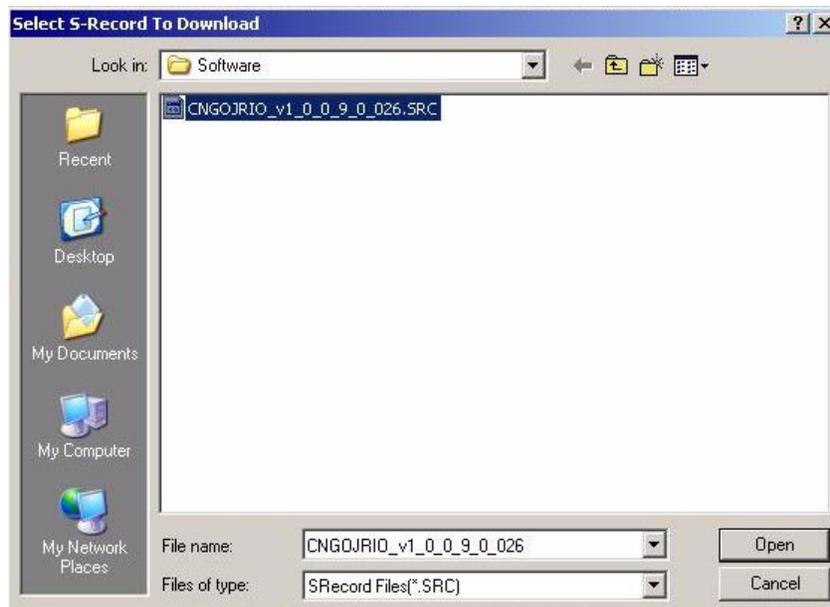


Step 14: Click on the **File** button

Step 15: Browse to the USB Flash Drive's software folder



Step 16: Select the file labeled "CNGOJRIO_v1_0_0_9_0_026.src"



Step 17: Click the **Open** button

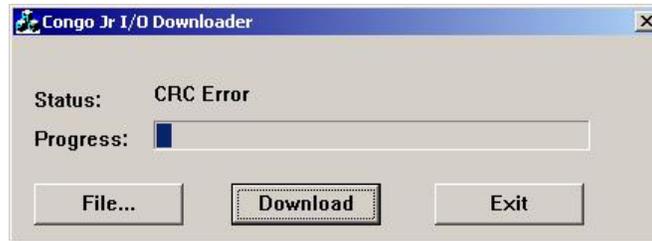
ETC Service Note

Congo™ jr v4.3 I/O Software Code Installation

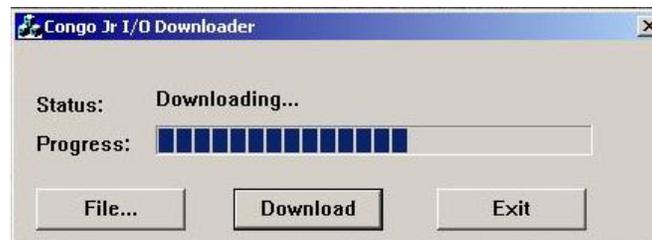
Step 18: Click on the **Download** button



Note: In some instances you will see a "CRC Error." disregard this error; the software will continue to install.



Step 19: The software update will take about 30 seconds. The progress bar will show the installation status.



Step 20: The status will indicate that the progress has finished and display "**Download Complete.**" When this message is displayed click the Exit button. The Congo jr console will reboot

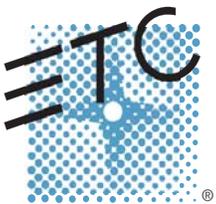
Step 21: Remove the USB flash drive while the Congo jr is rebooting

Step 22: After the Congo jr has rebooted, at the main login screen, select shut down. Physically switch off the desk and back on.

Step 23: Your Firmware update is now complete.

If you have any questions on this update, please contact ETC Technical Services.





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