

# **Assembly and Set-up of the 3-manual VPO by Organtechology**



# **Before you begin the console assembly.....**

- Unpack the pallets and move all of the contents to the area where the console will be installed.
- The console itself will have pieces of the console packed in bubble wrap inside. These need to be removed to the assembly area *before* the console base is moved there. This will lighten the load considerably and make it possible for two people to easily place the base on a furniture dolly for the journey.
- The Fatar keyboards must have their end brackets re-attached before they can be used. The end brackets are labeled and the hardware is found in position on the keyboard. Simply remove the screws from the keyboard with a cross point or square drive screwdriver, place the brackets in position and re-install the screws. There are two for each bracket.

# Console Support Feet



- Locate the feet (shown in picture) and the box with the plastic bags of screws used to mount the feet.

# Install each foot



- Place the foot as shown in the photo so that the notch in the rear of the foot is over the cleat. Press down on the front of the foot to seat the foot support to align with the holes in the cabinet.

# Install each foot



Insert the supplied deck screws into the countersunk holes in the foot and tighten snugly. If the holes do not appear countersunk, please use the other foot. There is another screw above the location shown in the picture. You and a helper can now lift the cabinet upright to sit on the feet.

# Mounting the Expression Pedals



- Locate the box with the expression pedals and the 12 mounting screws. The six black screws are for the front and the other six are to be installed from the inside of the cabinet. The wires are then placed between the knee board and the pedal board stop where they can be connected to the pedalboard but are hidden from view.

# Connections to the Computer



The cables installed inside the console base are labeled as to which computer connector they attach. In order to accommodate the console pieces inside the base, it was necessary to disconnect the power cables. The power cables should be connected at this time.



In order to see the back of the computer it may be necessary to turn it slightly on the roll out shelf. Please put support material under the end of the slide out shelf away from the console base.

# More Connections to the Computer



Match the cable to the connection on the computer by the label on the cable and the one on the computer.



These two blocks convert the touch screen 'touches' to signals over USB. These are now mounted to the back wall of the console.

# Final connections to the computer.



The screw shown in the left picture is used for strain relief as the computer is rolled in and out on the shelf. Tie-wraps may also be installed to facilitate holding the wires in place. In this installation, the tie-wrap is located on the left upper and left lower screws.

# Installing the corbels



- The corbels are held on with two wing nuts on each corbel. The bolts are inserted in the mating holes in the front of the cabinet and the wing nuts are added. No tools are required for this operation.

# Installing the corbels



- The threaded studs on the rear of the corbels are now inserted into the predrilled holes in the front of the cabinet.

# Installing the corbels



- Attach washers and wing nuts to corbel studs on the inside of the cabinet. No tools required.
-

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-

# Attaching the monitor shelves to the base of the keydesk.



- The monitor shelves (left and right ) are now attached to the base. The shelves are secured to the base via 3 wing-nuts and washers applied from underneath the shelves.

# Securing Monitor Shelves to Base



- The monitor shelves are secured in place by positioning the three studs on the bottom of each shelf over the corresponding holes in the top of the base and gently pushing down until the shelf is resting on the top of the base.

# Securing Monitor Shelves to Base



- The left shelf is installed in a similar manner.
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# Securing Monitor Shelves to Base



- The wing nuts and washers are now attached to the studs. One set for each stud.

# Attach the LED Pedal Light to Console



- Locate the pedal light and assemble it prior to attaching the light to the console.
- After the light is attached (as shown) the plug on the cord plugs into the power supply mounted on the inside of the front of the console.

# Placing the lower keyboard in position

**Be VERY carefull when performing this step.**



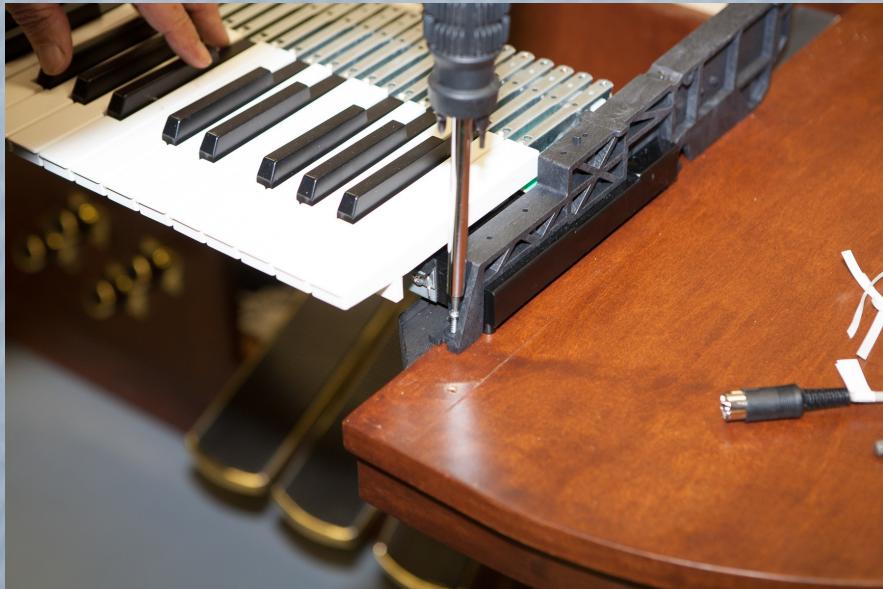
- To position the lower keyboard in the correct location, it will be necessary to remove the screws which will eventually hold it down from the shelves. There are two screws on each side of the shelf. Remove the ones towards the back of the console on each side.

# Placing the lower keyboard in position



- The manual marked 'lower manual' is positioned carefully between the shelves. The notch in the lower front of the bracket on either end of the keyboard is aligned with the remaining screw in the left and right shelf.

# Placing the lower keyboard in position



- The removed screw is now reinserted into the original hole through the hole in the bracket.
- This is the only screw used to hold the keyboard stack in position.

# Connect the Lower Keyboard



- The lower keyboard is connected to the cables marked lower keyboard. The picture to the left is intended to show the location of connectors.
- On the left side of the green PCB is the coaxial power connector.
- The USB connector is to the right.
- The MIDI cables are on the right side of the PCB.

# Connect the Lower Keyboard



- Insert the power cable marked 'lower kb power' into the power jack on the left side of the board.
- Locate the USB connector cable and insert into the USB socket.
- Locate the cable marked MIDI IN Lower Keyboard into the MIDI IN of the keyboard. There is NO MIDI out connection to this keyboard, it is USB output only.

# Stack the manual marked Middle Keyboard on the Lower Keyboard



- Using the supplied end brackets for the Fatar keyboards, stack the middle keyboard onto the lower keyboard.
- Remove the screw in the lower keyboards where the middle keyboard will sit and re-insert it through the matching hole in the middle keyboard.

# Stack the manual marked Middle Keyboard on the Lower Keyboard



- After the manual is in place, and the hold down screw re-installed, connect the Middle Keyboard cables to the connectors on the rear of the green PCB.
- The power connector is marked 'Middle keyboard'
- Locate the end of the cable coming from the lower keyboard marked 'Middle keyboard MIDI OUT'

# Connect the Middle Keyboard



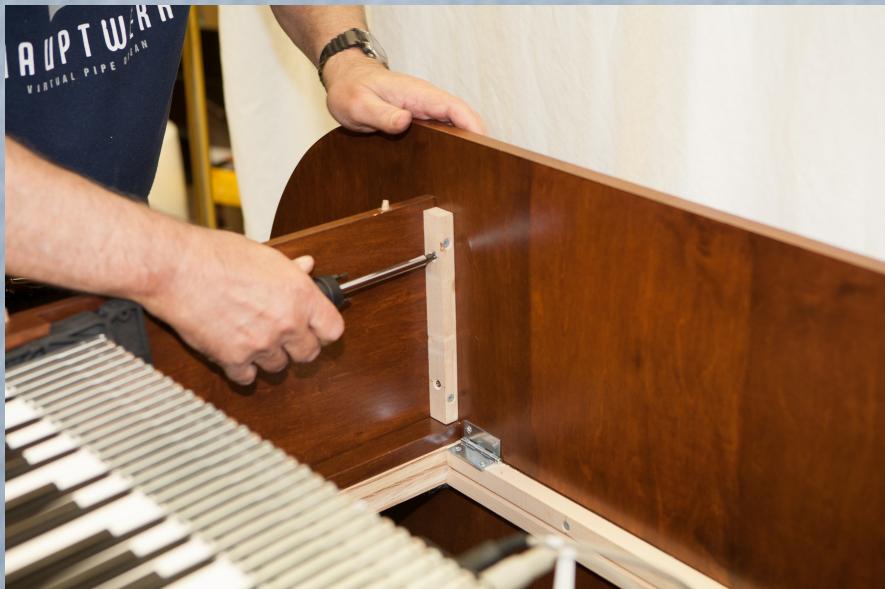
- Insert the power cable marked 'Middle kb power' into the power jack on the left side of the board.
- Locate the cable end marked 'MIDI OUT Middle keyboard' and connect it to a MIDI OUT connector on the Middle Keyboard.
- Locate the cable marked 'MIDI IN Middle Keyboard' and connect it to the MIDI IN jack of the Middle Keyboard.

# Install the top manual and hold down screws.



- The top manual is installed in a similar fashion to the middle manual. The hold down screws are put in place and the cables are then connected.
- The power cable is connected first and then the MIDI cable from the Middle Manual MIDI IN is connected to the Top Manual MIDI OUT.
- The MIDI cable from the pedalboard is connected to the MIDI IN connector of the Top Manual.

# Keycheek Installation



- This step will include the installation of the hinged back as well as the mounting of the keycheeks.
- Locate the console component wrapped in bubble wrap and labeled 'hinged back'. Attach this to the console base with the four screws provided. It may be handy to have a helper to hold the back in position for this step.
- Locate the left keycheek component in its bubble wrap. Position the keycheek as shown in the picture. Use two of the silver wood screws provided to fasten the keycheek to the hinged back.

# Insert wood screw into keycheek



- Locate the hole underneath the shelf as shown in the picture and gently insert screw through the hole and into the predrilled hole in the bottom of the keycheek. It may be necessary to lift the keycheek slightly to observe that the screw is going into the proper location. Tighten the screw lightly at this time.
- Return to the screws in the back of the keycheek and gently snug up the keycheek to the hinged back.
- The right side keycheek is installed in a similar manner.

# Connecting Touchscreen Displays



- Remove the insert from the furniture hole cover and thread the VGA/DVI cable through the opening. Connect to the appropriate video connector.
- Next thread the powercable from the display power block through the opening. Connect to the coaxial power connector.
- Thread the 4-conductor cable from the back of the display through the opening from outside to inside. Connect to the nearest Touchscreen connector.

# Confirm ALL cable connections.



- Confirm that ALL console cables are securely connected to the appropriate points.
  - Power Supplies -
  - Keyboards -
  - Computer -
  - Touchscreens & Displays
  - Pedalboard (console internal)

# Place Top on the keycheek pegs.



- After the wiring and connections are 100% complete & secure. Place the top on the keycheeks, align the holes in the top with the pegs and seat the top securely by pressing down firmly on each side .

# Pedal Board and Expression Shoes



- Locate the pedal board box and stand it on end.
- Remove the tape holding it closed on that end.
- Stand the box so that the open end is down and lift the box off the pedal board.

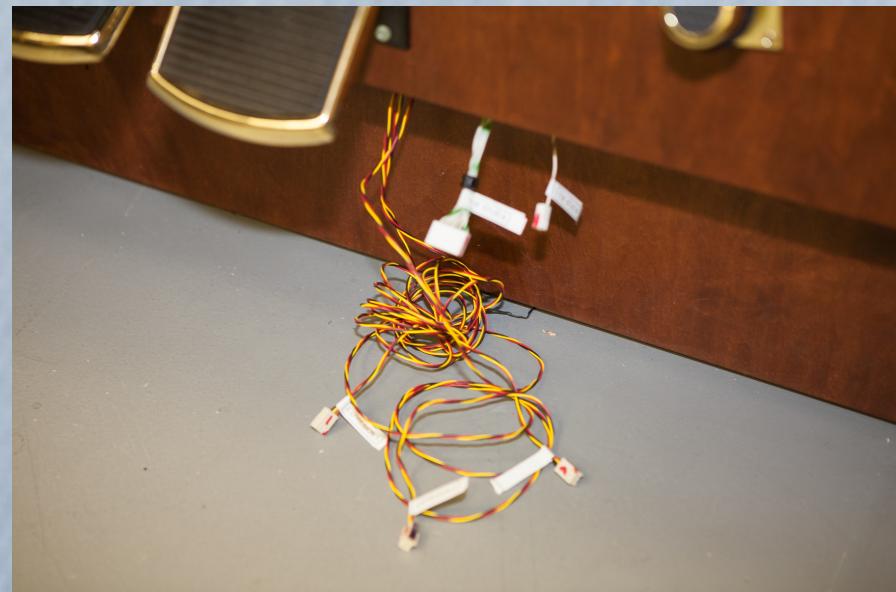
# Wiring for the Pedal Board



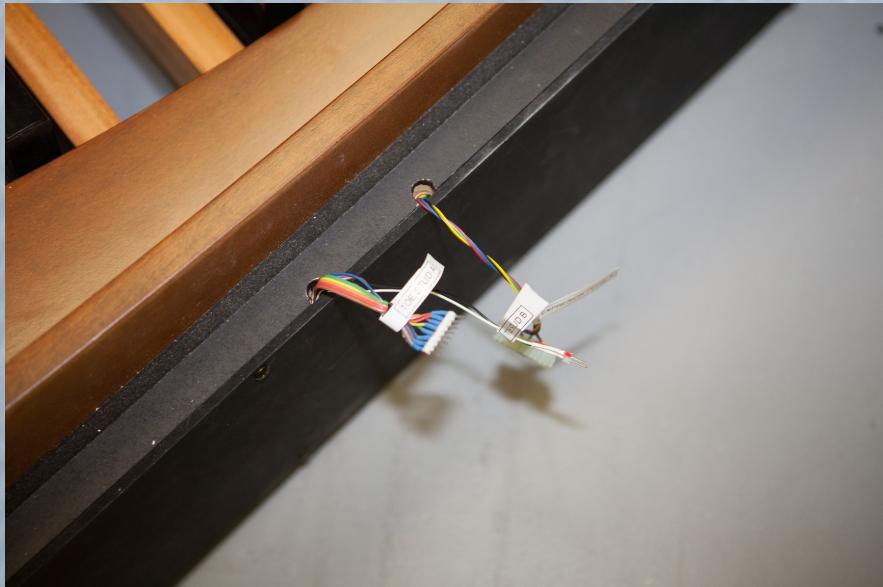
- The power and MIDI OUT connections for the pedal board allow the 32 notes of the pedal board to be played and the MIDI data transmitted to the keyboard stack. From the keyboard stack, the data goes to the computer sound engine.

# Wiring for the Expression Pedals and Toe Stud Pistons

- These groups of wires provide connections from the expression pedals and the toe stud pistons to the pedal board.
- The three conductor multi-colored wires are the expression pedals and the longer flat connectors marked 'left' and 'right' are from the toe stud pistons. In some cases these originate in a set of bolsters with the toe stud pistons mounted on them.



# Wiring from the Pedal Board



- The wires from the Pedal Board come out to meet the wires from the console. The 'Left' connector from the pedal board connects to the 'Left' connector from the console. The 'Right' to the 'Right'
- The expression pedal connectors are numbered 1,2,3 and connect to positions 1,2,3 on the connector from the pedal board.

# Pedal Board in Position



- The wires from the console connect to the power connector and the MIDI OUT of the pedal board in the lower right portion of the front.
- The expression pedal connectors are numbered 1,2,3 and connect to positions 1,2,3 on the connector from the pedal board. On each 3-wire connector, the outside pins connect to a red and black from the pedal board. The center pin is a different color in each one. There is also a one pin space between the connectors.

# Final positioning of Pedal Board

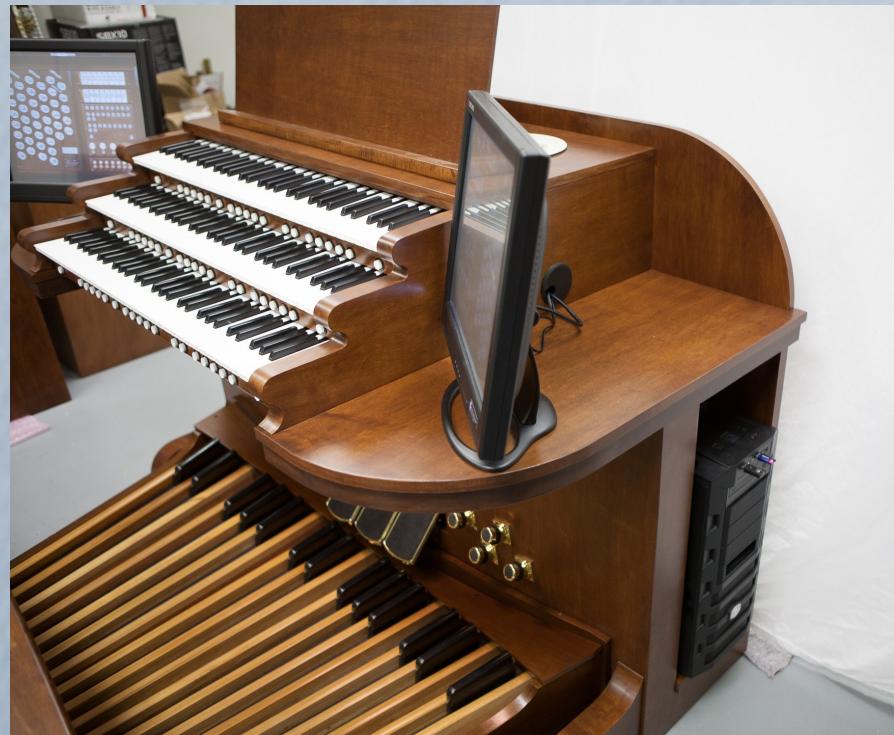


- The final position of the pedal board will hide all of the wiring but leave sufficient length for later disconnection for maintenance or repair.

# Music Stand Placement



- The music stand base is placed on the top of the keyboard stack and the music rest board (or acrylic) is inserted into the slot.



# Completed Console



- The console assembly is now complete. The audio module and speaker connections still need to be made prior to being able to play the organ.
- In addition to this manual, we are available to assist in setting up the console both mechanically and electronically from Plano, Texas via phone and high speed internet remote control. The customer must provide the internet connection in either wired or wireless form.
- There is no charge for this initial set-up assistance

Console Design and Construction  
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