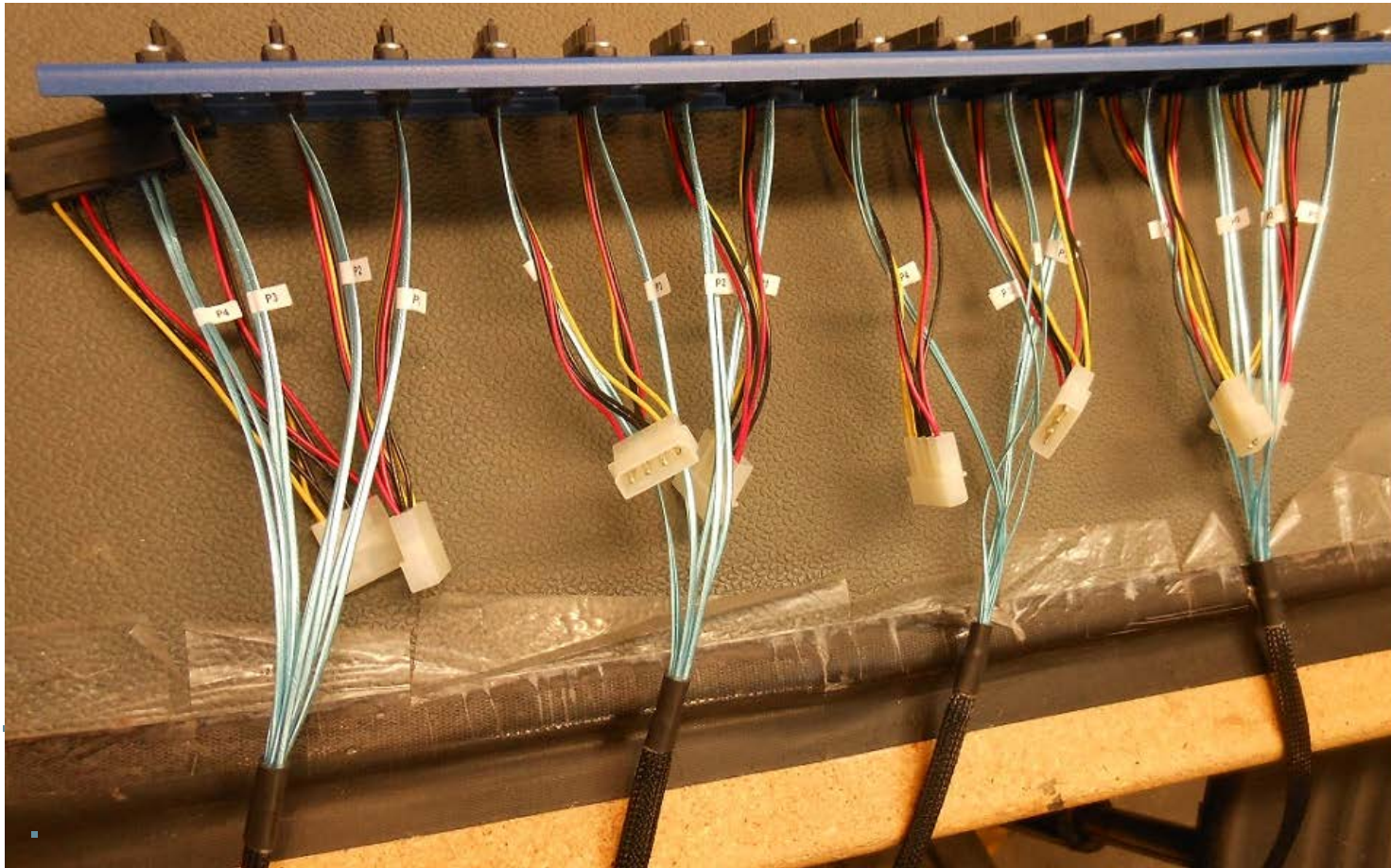


1.0 Back Plane Bracket Assembly

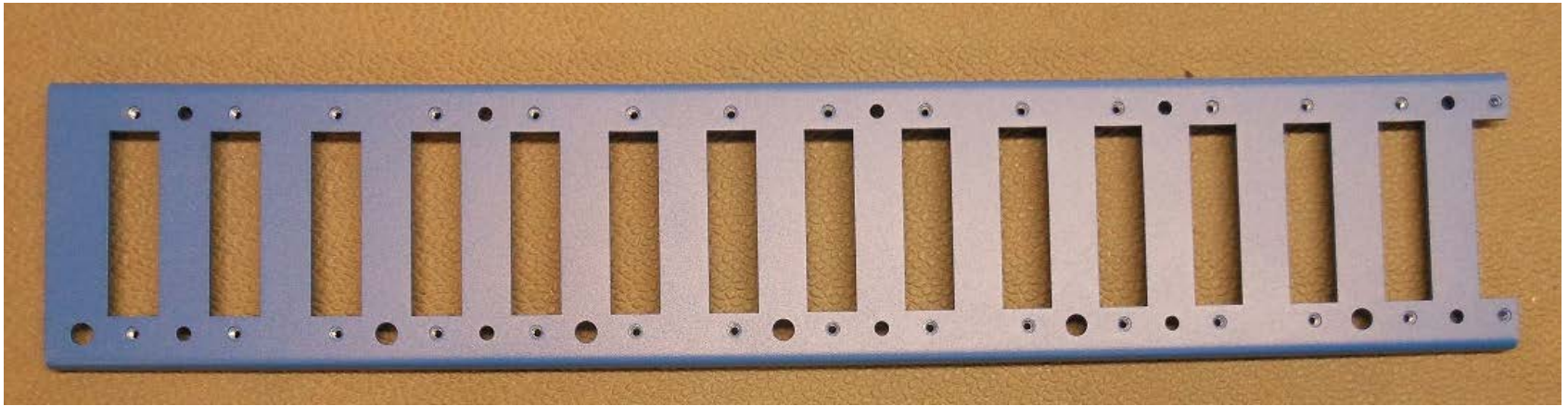


1.1 Part Identification & Inspection

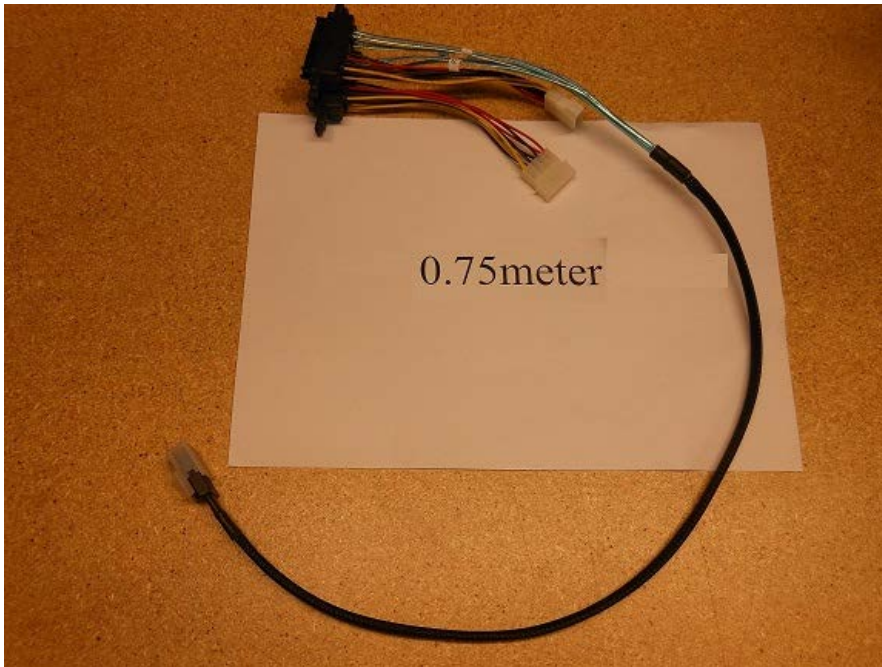
NOTE: Inspect **all** parts before assembly.

You will require the following parts:

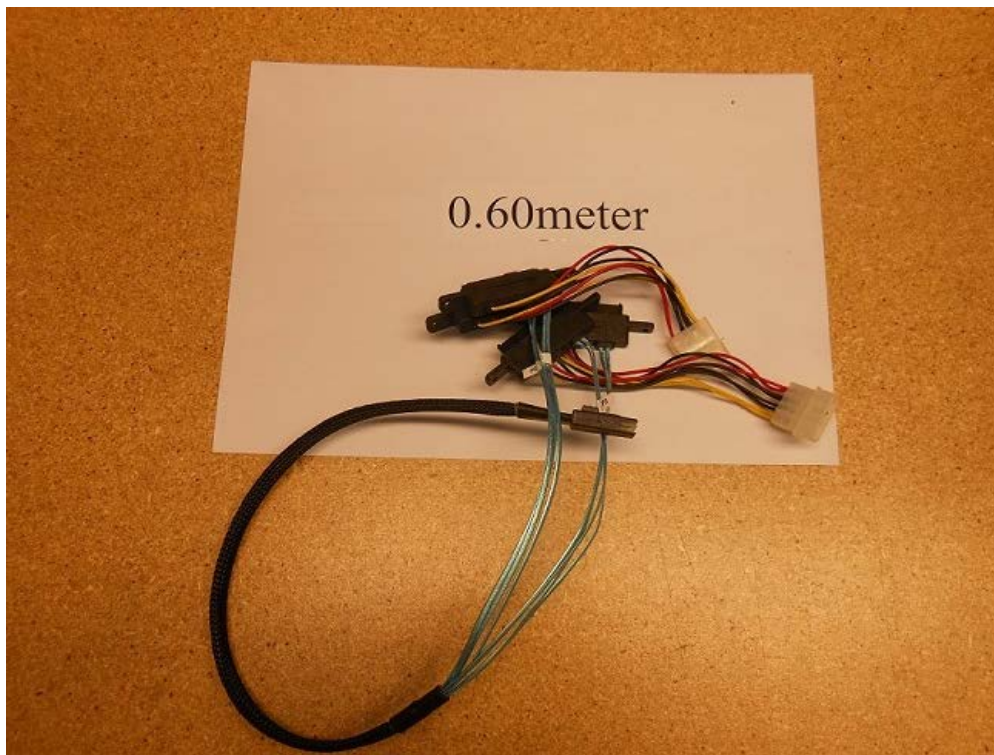
1. **3** x Brackets



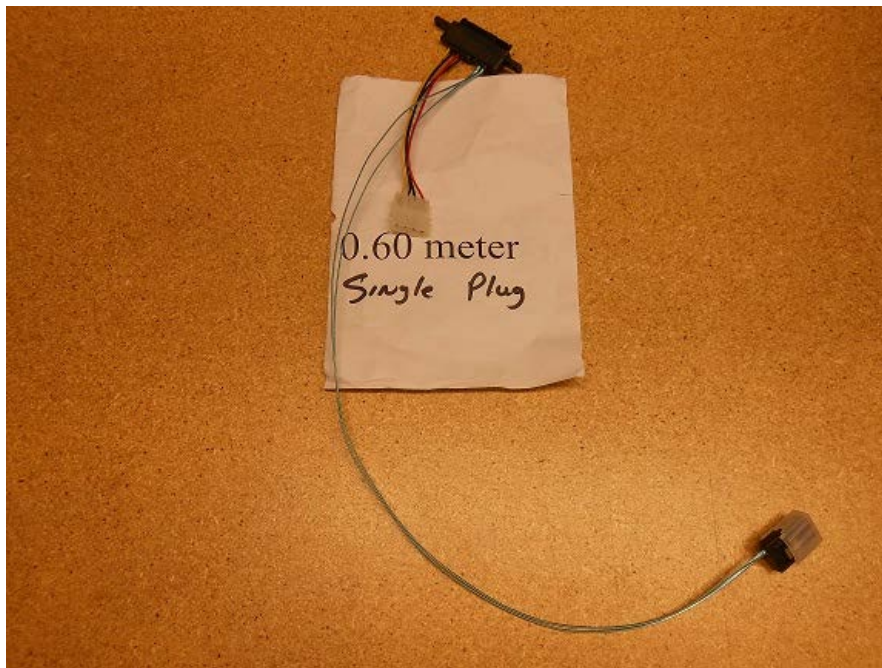
2. 8 x 0.75 Meter Standard Cables



3. 3 x 0.60 Meter Standard Cables



4. 1 x 0.60 Meter Single Plug



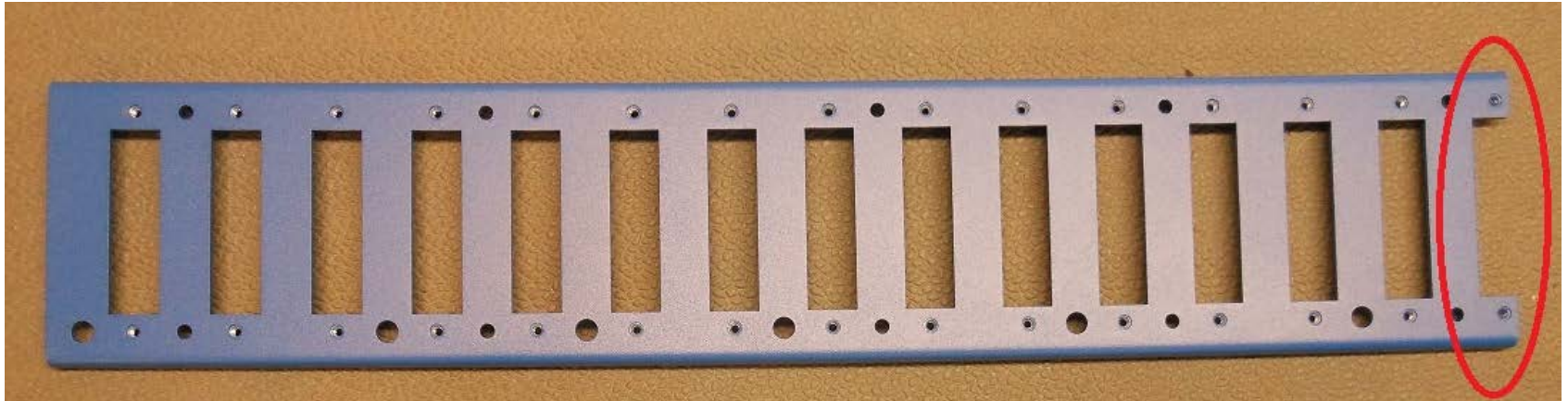
5. 4-40 x 3/8" Pan Head Zinc screws.



1.2 Assembling Cables to the Back Plane Bracket

1.2.1 Back Plane Bracket #1

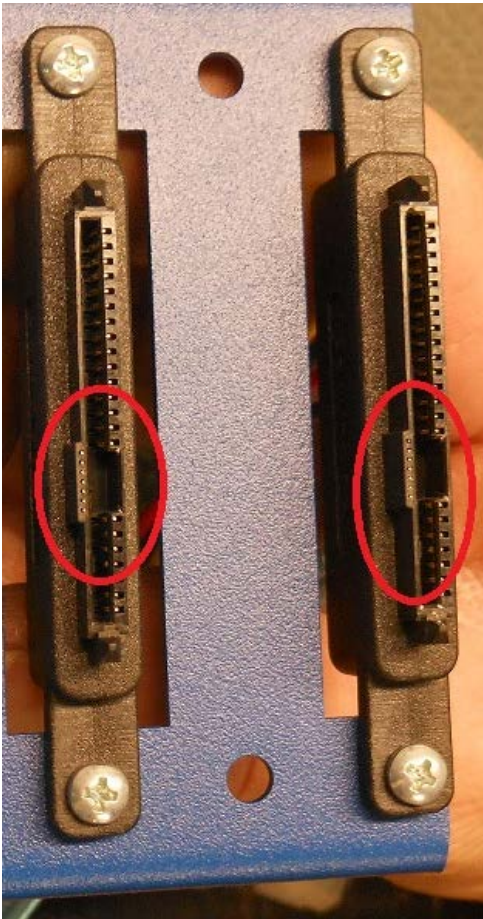
1. Hold **Bracket #1** such that the **Broken Slot** is on the **Right** side.



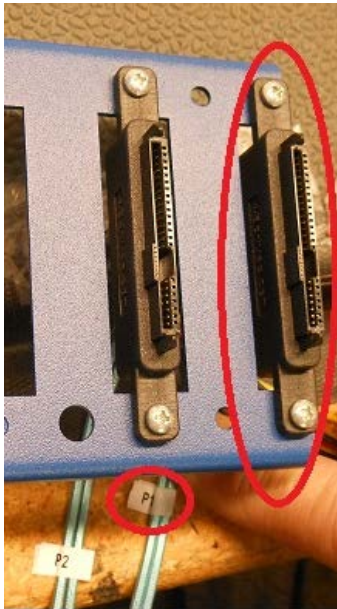
2. Install **4 x 0.75 Meter Standard Cables** starting with **Slot #1** on the **Far Right** of the bracket.
 1. Note that each cable has **4** connectors each; totalling **16** connectors.



- II. Install each connector such that the **notch** in the connector is **closer** to the **bottom** of the bracket than the **top**. They cannot be installed any other way.



- III. Insert each connector in order starting with the connector labelled **#1** from **Right-to-left**.

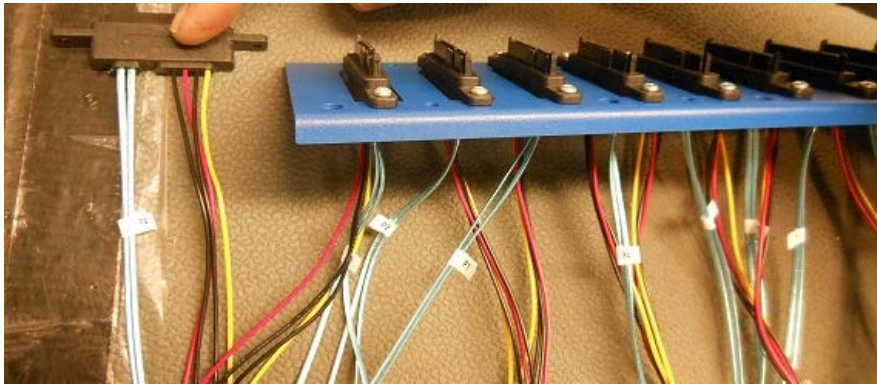


IV. Screw connectors in place with **4-40 x 3/8" Pan Head Zinc** screws.



V. Follow the same procedure as outlined above until all **4 Cables** are installed.

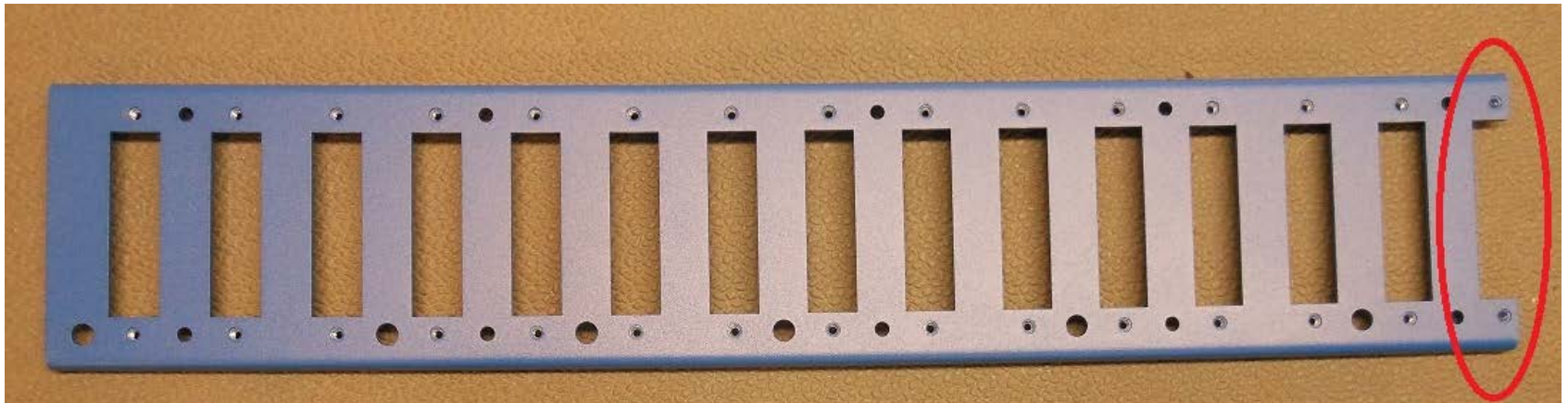
VI. **NOTE:** When all cables are installed, there should be **1** connector remaining to start the **2nd Back Plane Bracket**.



VII. INSPECT all cables after installation for proper orientation and to ensure they are secure.

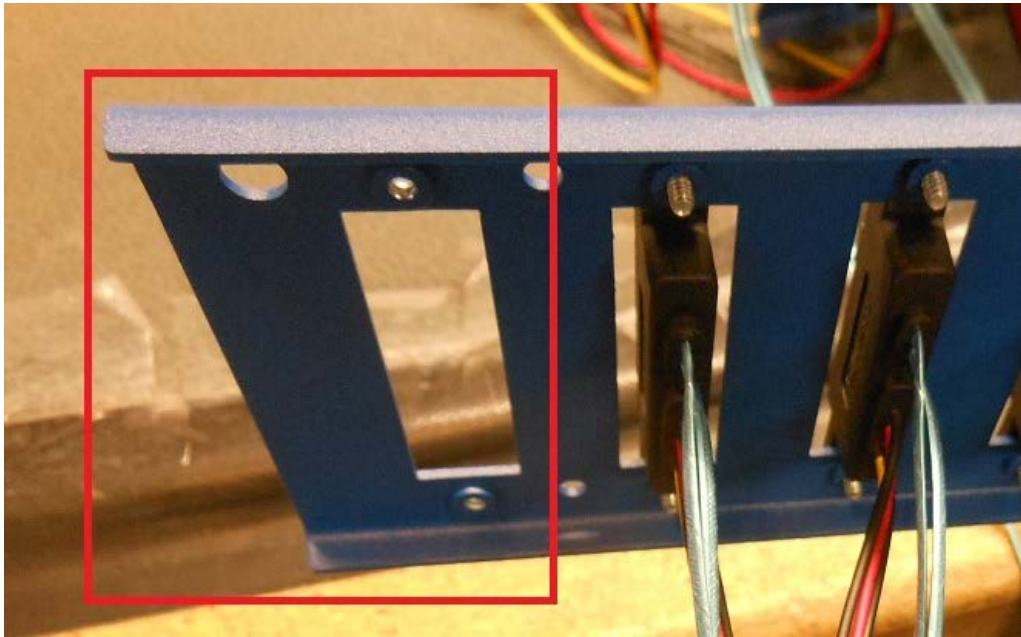
1.2.2 Back Plane Bracket #2

1. Hold **Bracket #2** such that the **Broken Slot** is on the **Right** side.



2. Install 4 x 0.75 Meter Standard Cables starting with **Slot #2** on the on the **Far Left** of the bracket.

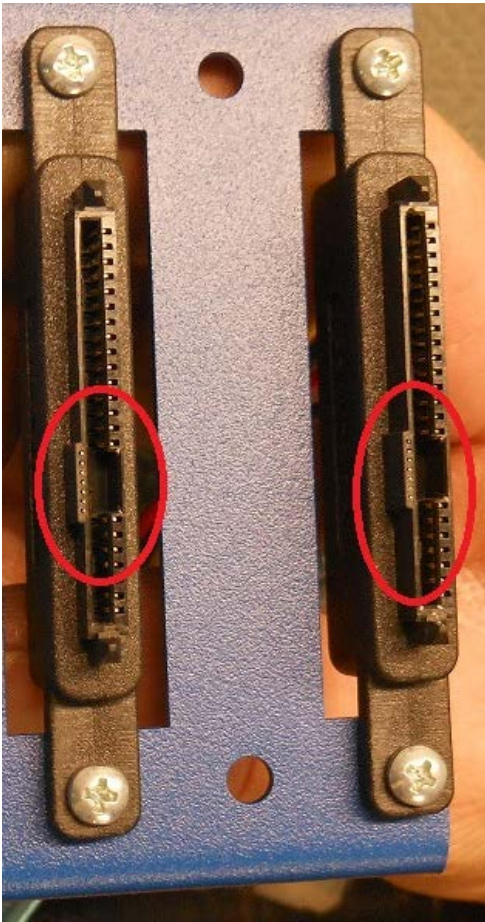
I. SKIP THE FIRST SLOT. This is required for installing the **Remaining** connector from **Bracket #1**.



II. Note that each cable has 4 connectors each; totaling 16 connectors.



III. Install each connector such that the **notch** in the connector is **closer** to the **bottom** of the bracket than the **top**. They cannot be installed any other way.



IV. Insert each connector in order starting with the connector labelled **#1** from **LEFT-to-RIGHT**. Remember to begin at **Slot #2**.

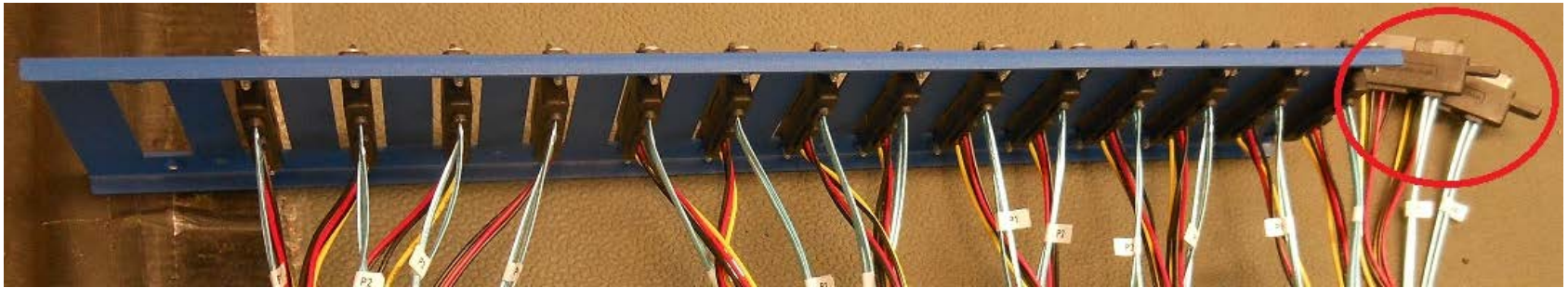


V. Screw connectors in place with **4-40 x 3/8" Pan Head Zinc** screws.



VI. Follow the same procedure as outlined above until all **4 Cables** are installed.

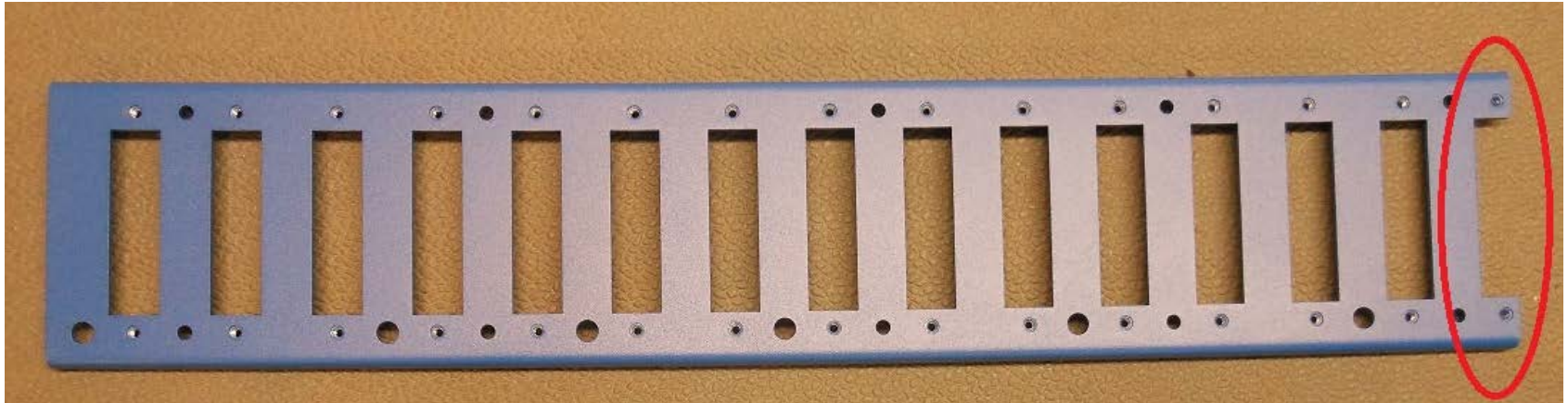
VII. **NOTE:** When all cables are installed, there should be **2 connectors** remaining to start the **3rd Back Plane Bracket**.



VIII. INSPECT all cables after installation for proper orientation and to ensure they are secure.

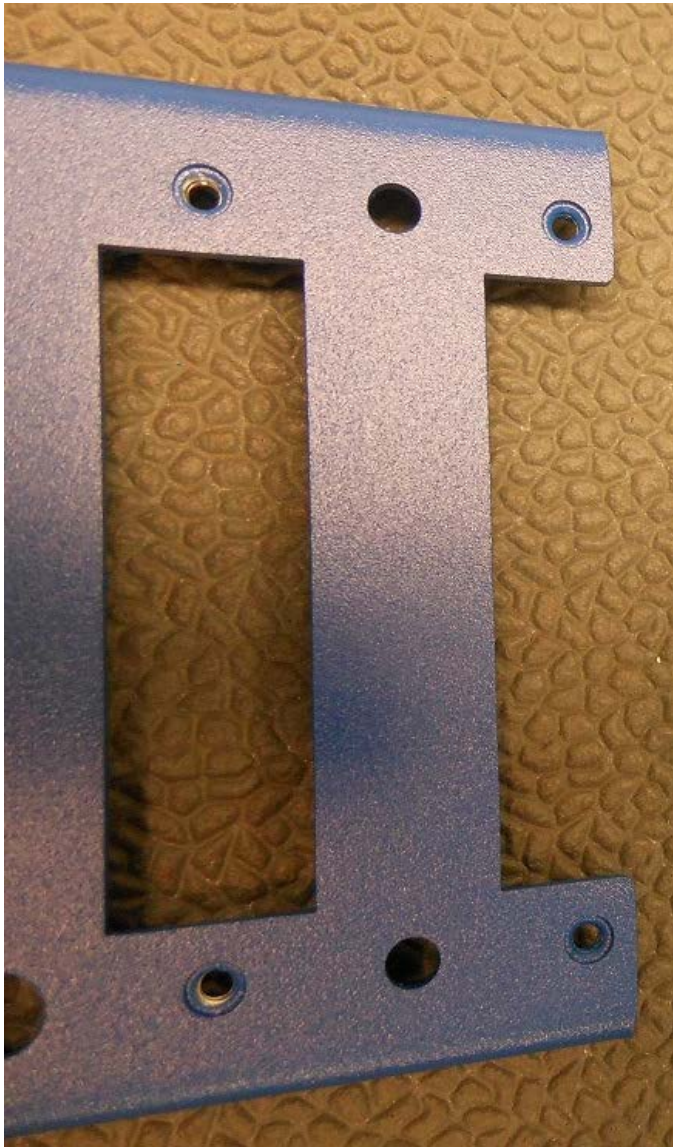
1.2.3 Back Plane Bracket #3

1. Hold **Bracket #3** such that the **Broken Slot** is on the **Right** side.



2. Install **3 x 0.60 Meter Standard Cables** starting with **Slot #3** on the **Far Right** of the bracket.

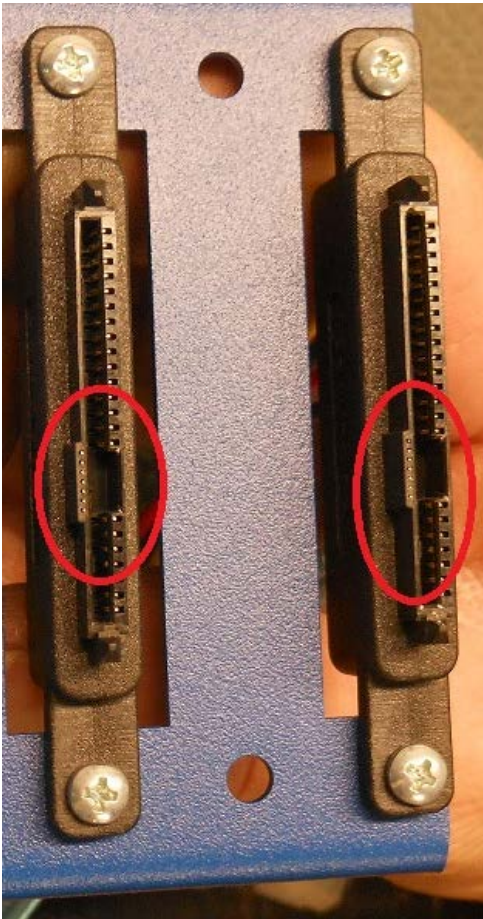
I. **SKIP THE FIRST 2 SLOTS.** These are required for installing the **2 Remaining** connectors from **Bracket #2**.



II. Note that each cable has **4** connectors each; totaling **12** connectors.



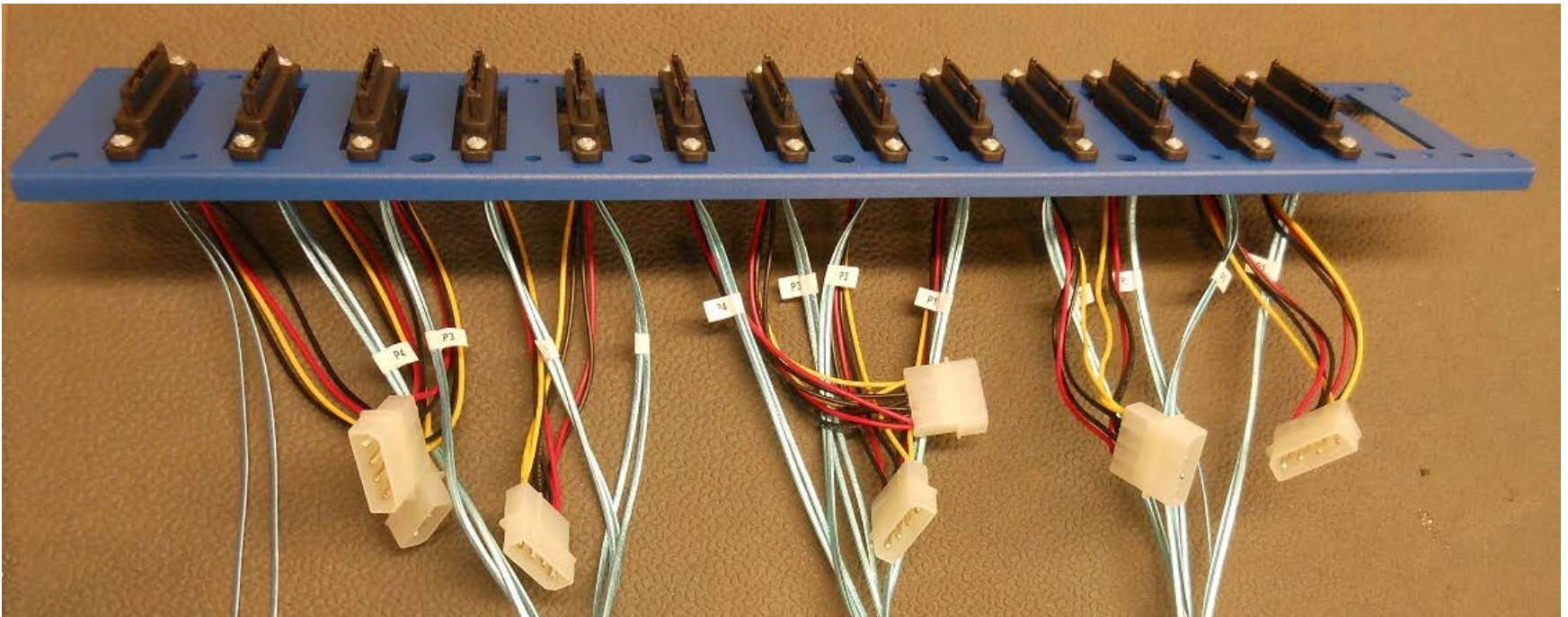
III. Install each connector such that the **notch** in the connector is **closer** to the **bottom** of the bracket than the **top**. They cannot be installed any other way.



- IV. Insert each connector in order starting with the connector labelled **#1** from **RIGHT-to-LEFT**. Remember to begin at **Slot #3**.
V. Screw connectors in place with **4-40 x 3/8" Pan Head Zinc** screws.



-
- VI. Follow the same procedure as outlined above until all **3 Cables** are installed.
- VII. Install **1 x 0.60 Single Plug** in the final slot.
- VIII. When all cables are installed in **Bracket #3**, there should be no remaining connectors.
-



- IX. **INSPECT** all cables after installation for proper orientation and to ensure they are secure.

2.0 Chassis

- Locate the proper **Chassis** for the unit.
 - A **5.0** chassis has **FEWER** standoffs on the base and **NO COUNTERSINKS** on the sides.





3.0 Fan Bracket Assembly

3.1 Fan Installation

- Inspect the individual fans for proper function and damage.
 - Spin each fan and listen for unusual sounds.
 - If a bearing is bad, you will hear it or feel a vibration.
- Remove wire ties and separate the wires.
 - Re-wrap to make for easier installation.
- Place the fan bracket face down.
- Place 1 fan in its proper location so that it lines up with the mounting holes.
- Flip the fan bracket over and insert the **silicone washers** and **screws**.
- Tighten screws.
- Repeat for the remaining fans.

3.2 Fan Bracket Installation

- Locate the proper **Fan Bracket Assembly**. This may be **Standard** or **Redundant**.

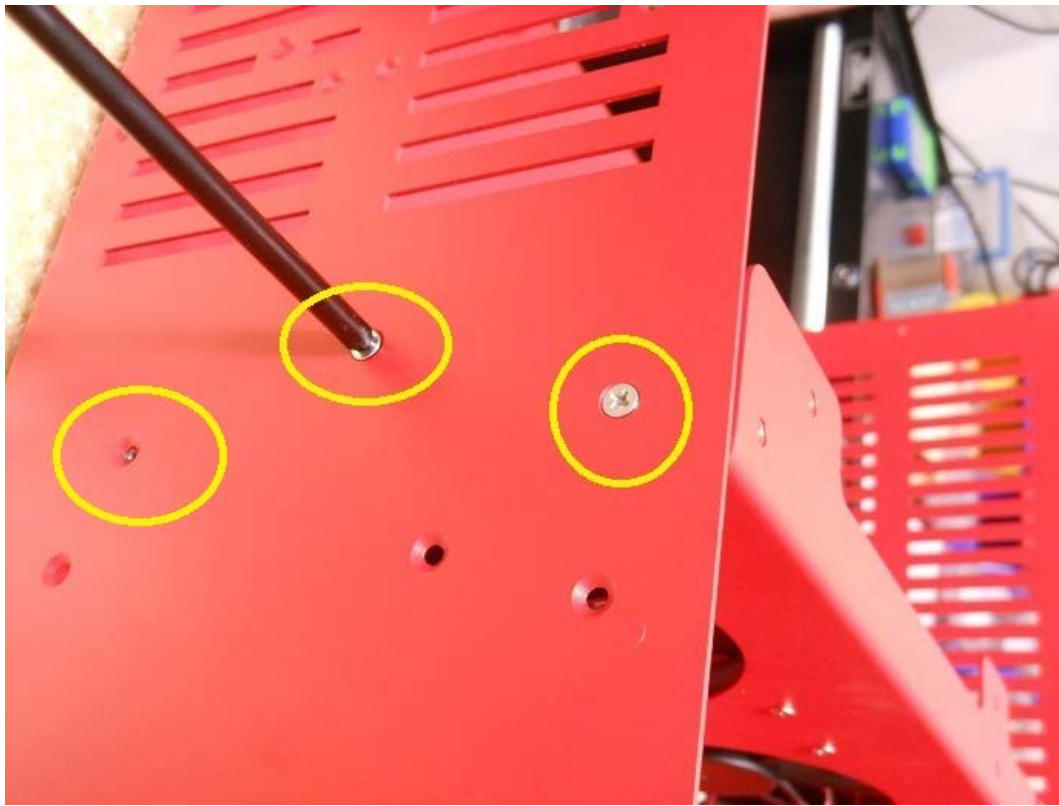




- Ensure the fan bracket assembly is labelled with the **JCE #**.



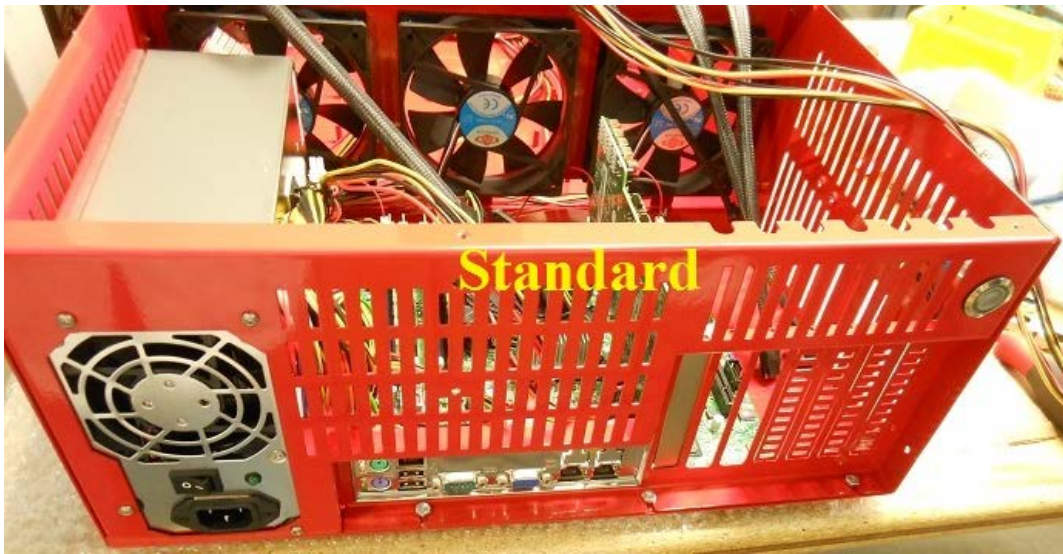
- Install the fan bracket assembly to the main chassis.
- Use **6 x 6-32 hex nuts** and **6 x 6-32 x 1/4 (100°) Flat Head Zinc screws**. 3 on the left side and 3 on the right side.



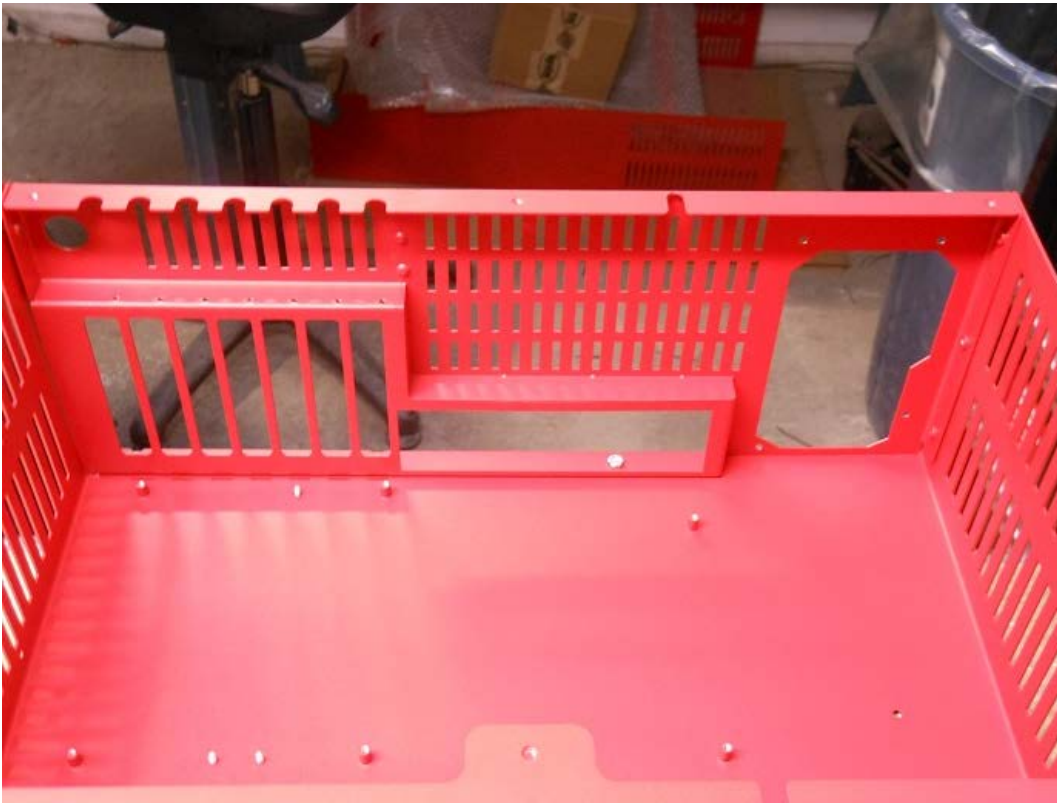
4.0 Rear Panel Assembly

- Locate the proper **Rear Panel**. This may be **Standard** or **Redundant**.





- Install the rear panel to the chassis.
 - Use **3 x 6-32 hex nuts** and **4 x 6-32 x 1/4 (100°) Flat Head Zinc screws**.
 - Do not completely **tighten**. There must be a gap between the rear panel and the chassis in order to install the mother board.



5.0 Power Switch Assembly

- Locate the proper **Power Switch**.
- Install the power switch in the **Rear Panel** and hand tighten.



6.0 Motherboard Face Plate Assembly

- Locate the proper **Motherboard Face Plate**.
- Install the motherboard face plate by pushing and snapping into place.





7.0 Motherboard Installation

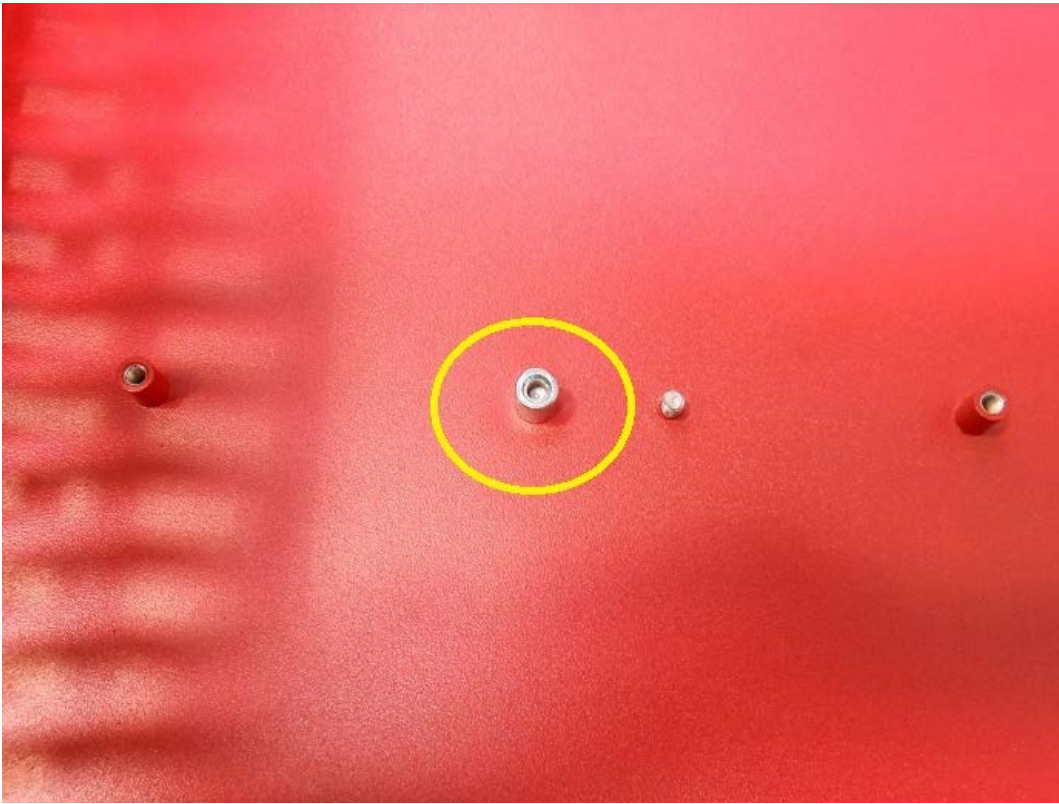
- Locate the proper **Motherboard**.





- Install an **M4 Standoff** on the base of the chassis so that the standoff lines up and fits into the mounting hole on the motherboard.
 - The stand off should be installed on the stud closest to the chassis side.



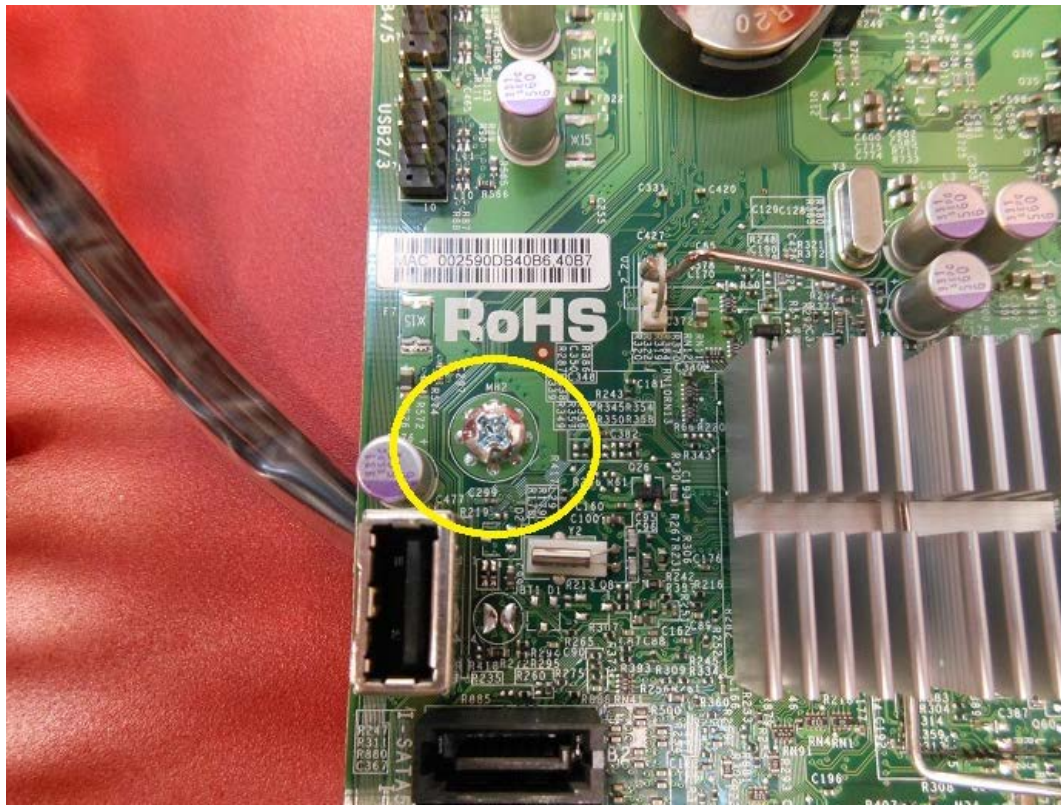


- Install the **motherboard**.
 - Ensure the **power cable** goes under the board.



- **IMPORTANT:**

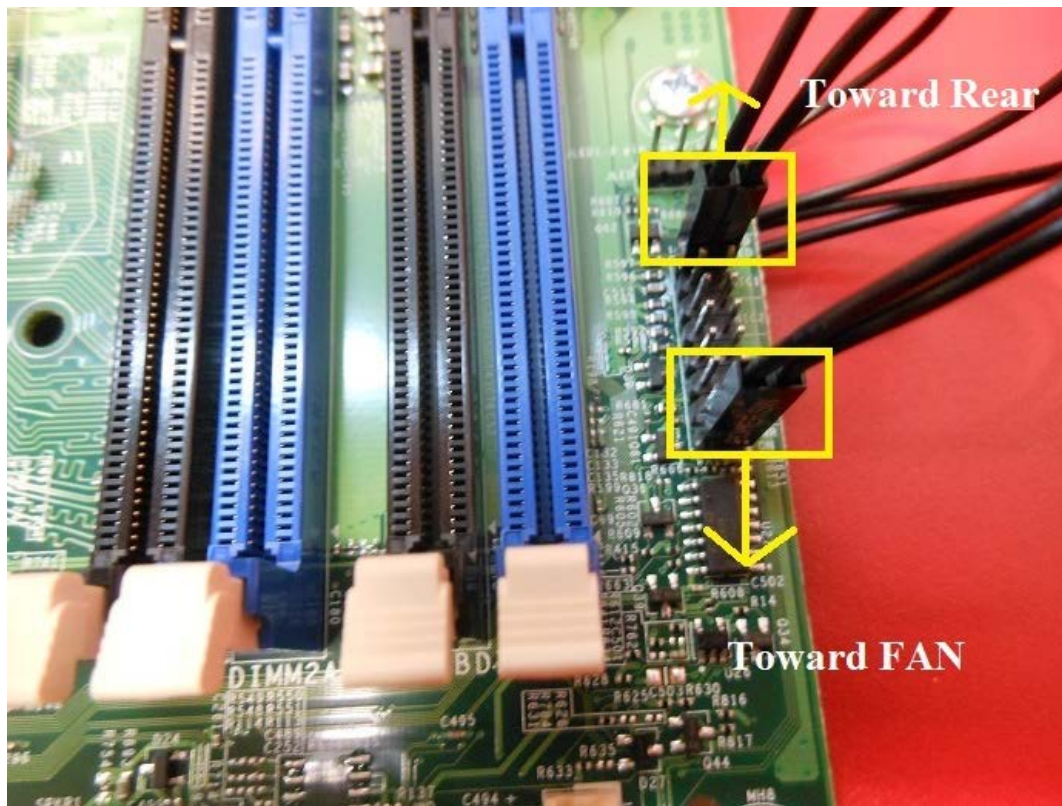
1. Use 1 x 6-32 x 3/16 Pan Head Zinc screw for the motherboard mounting screw.



2. Use 6 x 6-32 x 1/4 Pan Head Zinc screws for the remaining mounting holes.

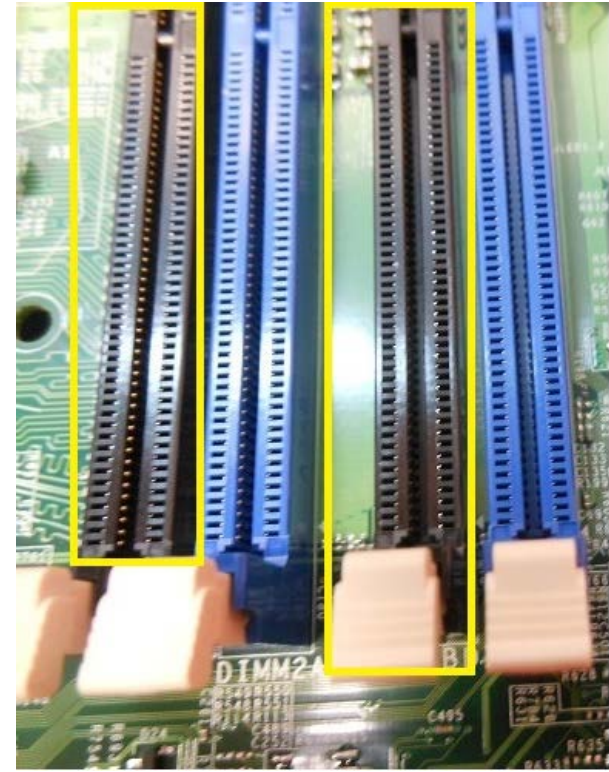
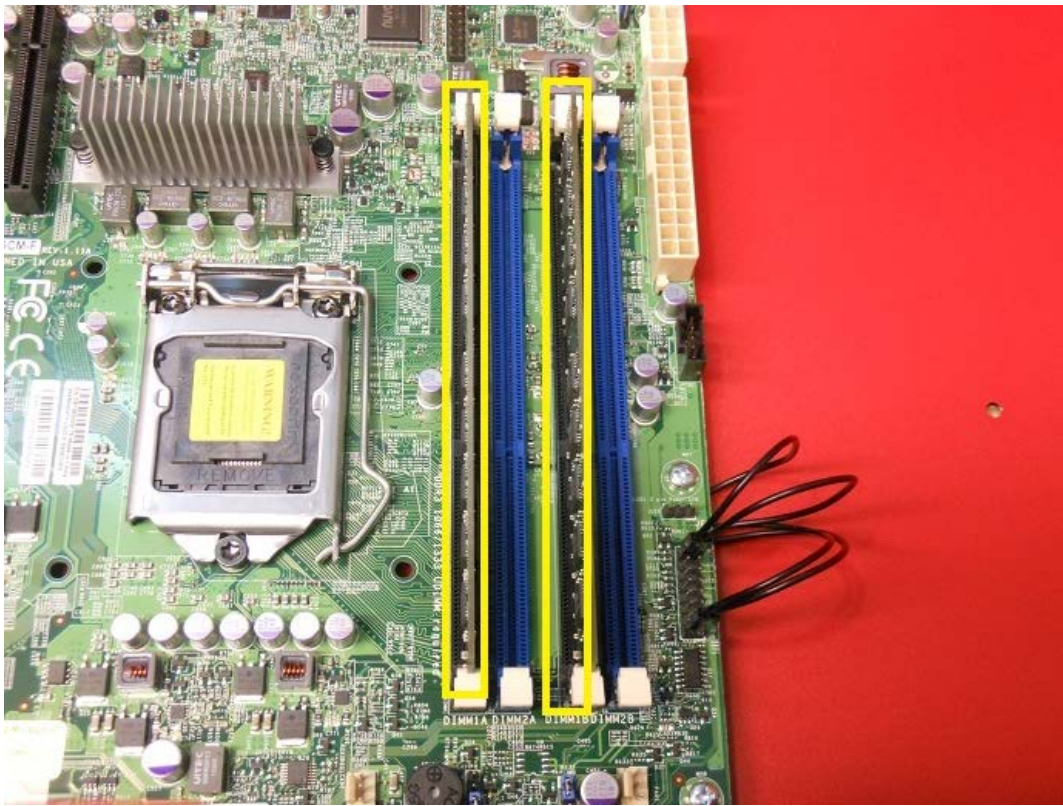


- Install the **Power Switch Connectors** to the motherboard.
 - Ensure the lettering on **Connector 1 (Closest to Fan)** faces the actual fan.
 - Ensure the lettering on **Connector 2 (Closest to Rear Panel)** faces the rear panel.

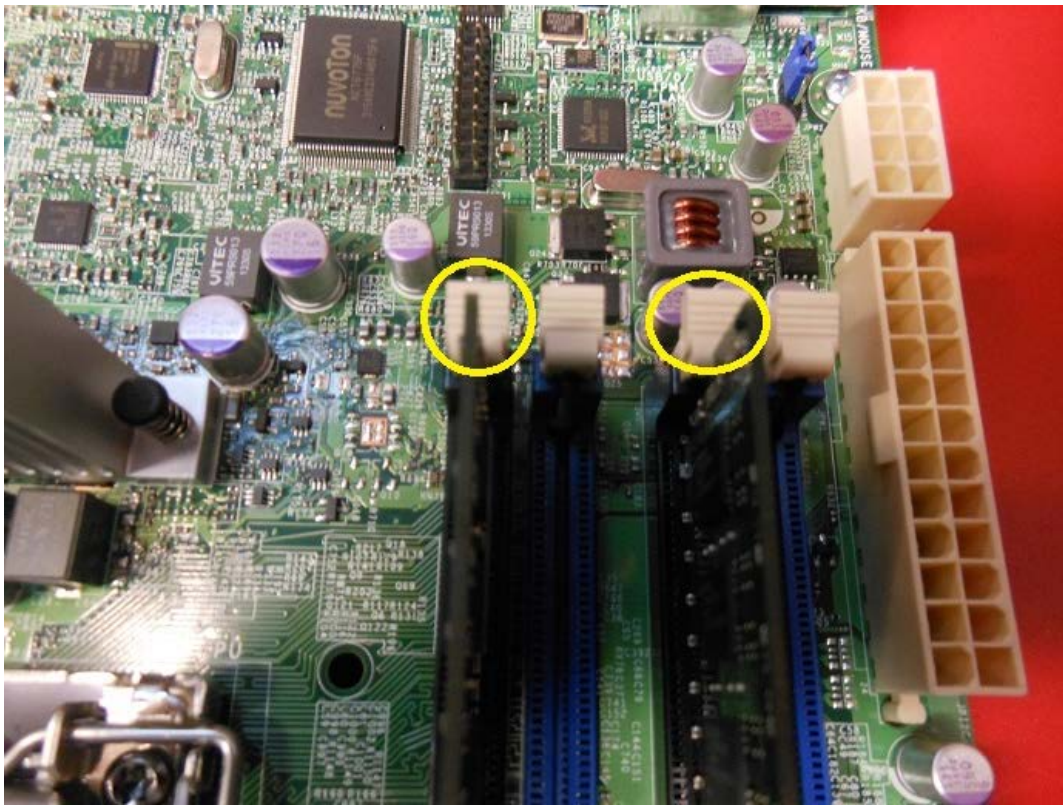


8.0 Memory Installation

- Refer to both the **Build Sheet** and **Parts List** to determine the specific memory required. This information may be contained in one or both locations.
- Install the required **Memory** onto the motherboard.
- If only **2** sticks of memory are required, install the sticks into each **Black Slot**.



- If 4 sticks of memory are required, all slots should occupy memory.
- When installed properly, you should hear the **White Clips** snap the memory into place.

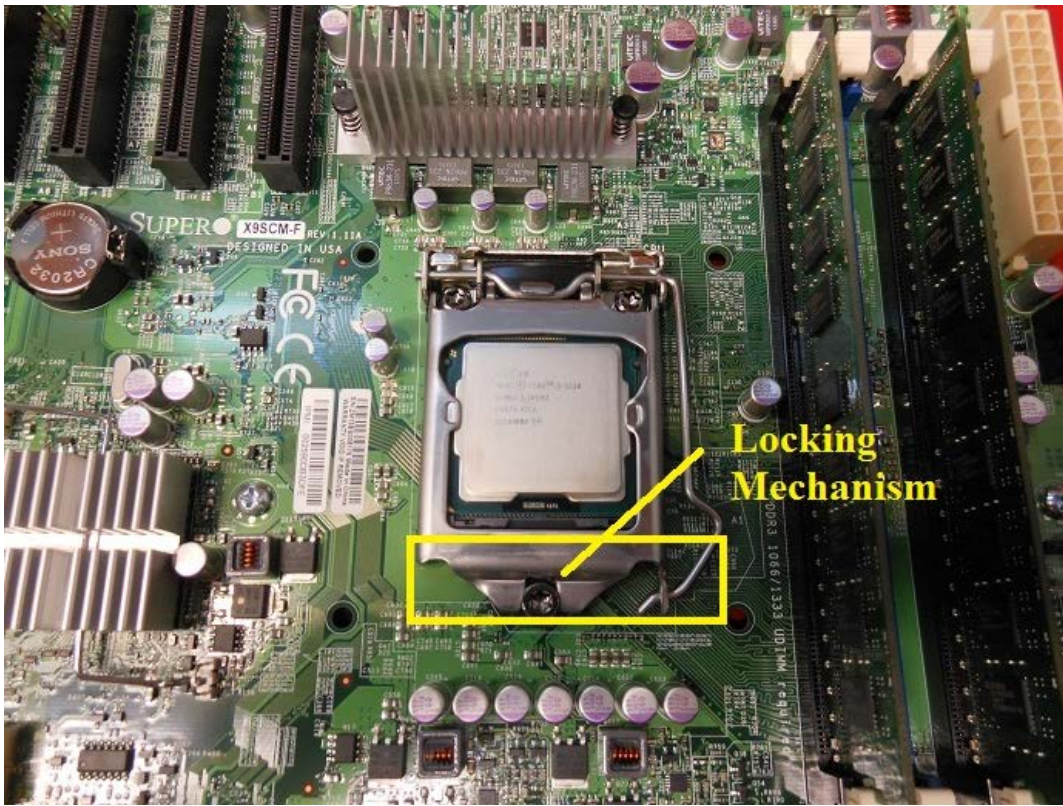


- Each package of memory contains a **warranty letter**. Place **1** warranty letter into the **envelope** designated for paperwork.

9.0 Processor Installation

- Release the **CPU Locking Mechanism**.

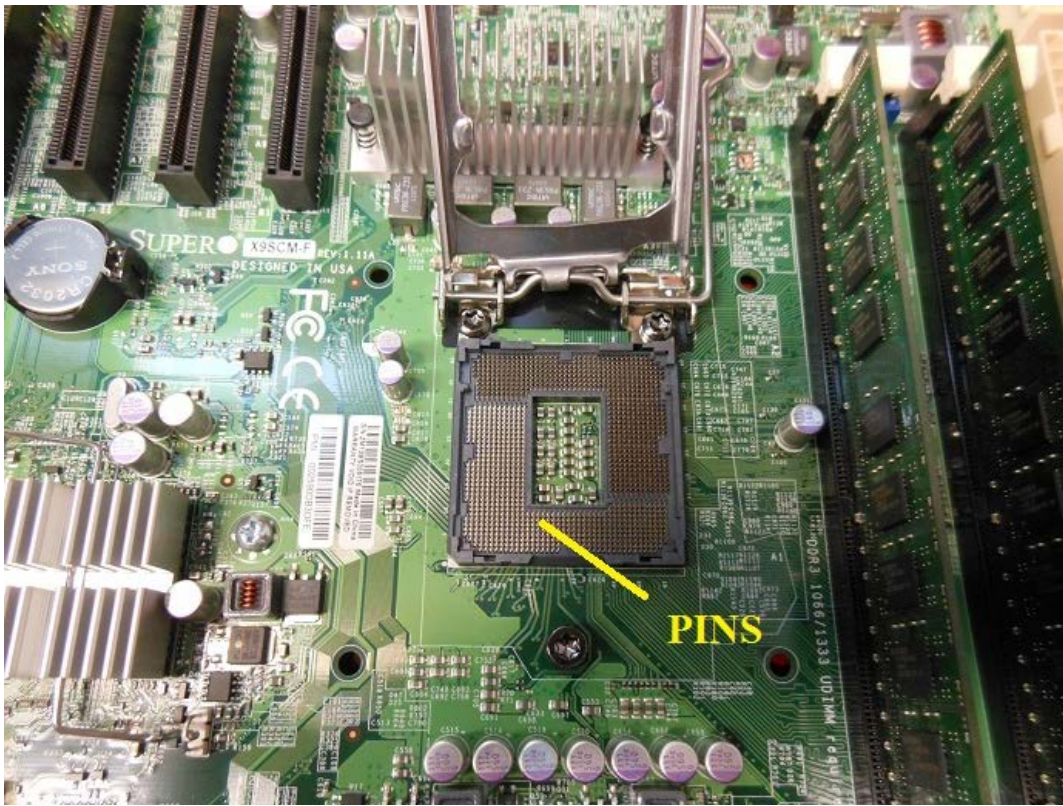




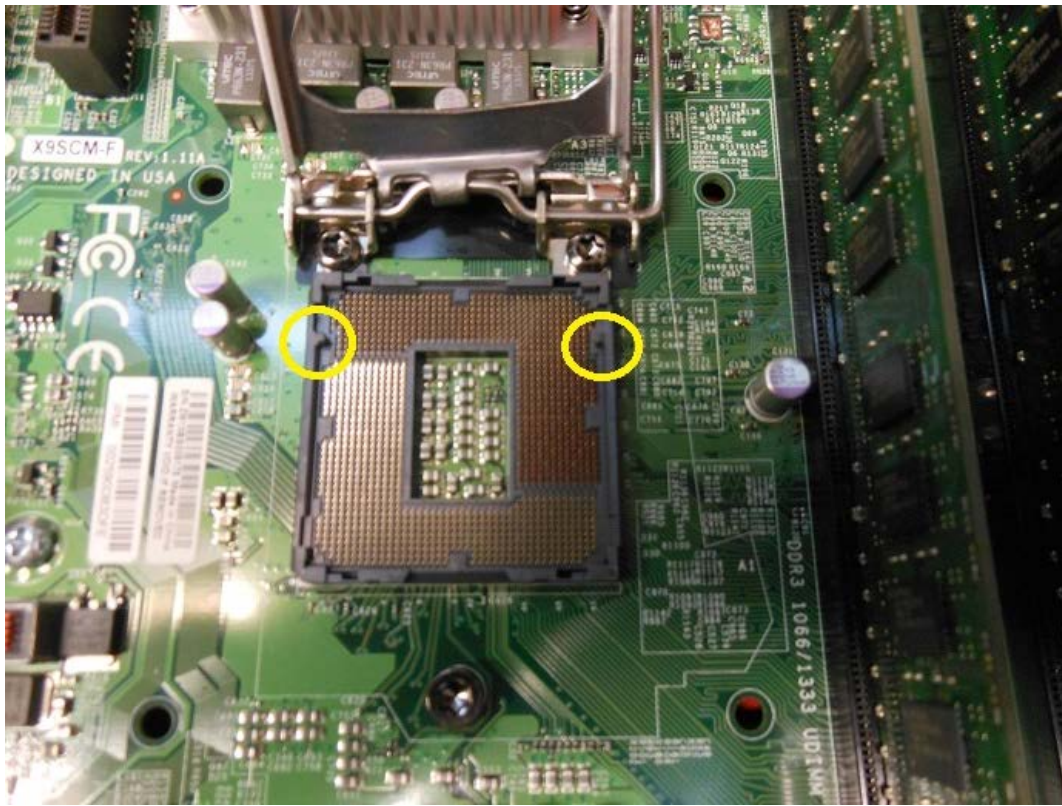
- Remove the cover from the processor housing.



- Once the cover is removed, inspect the condition of the **pins**.



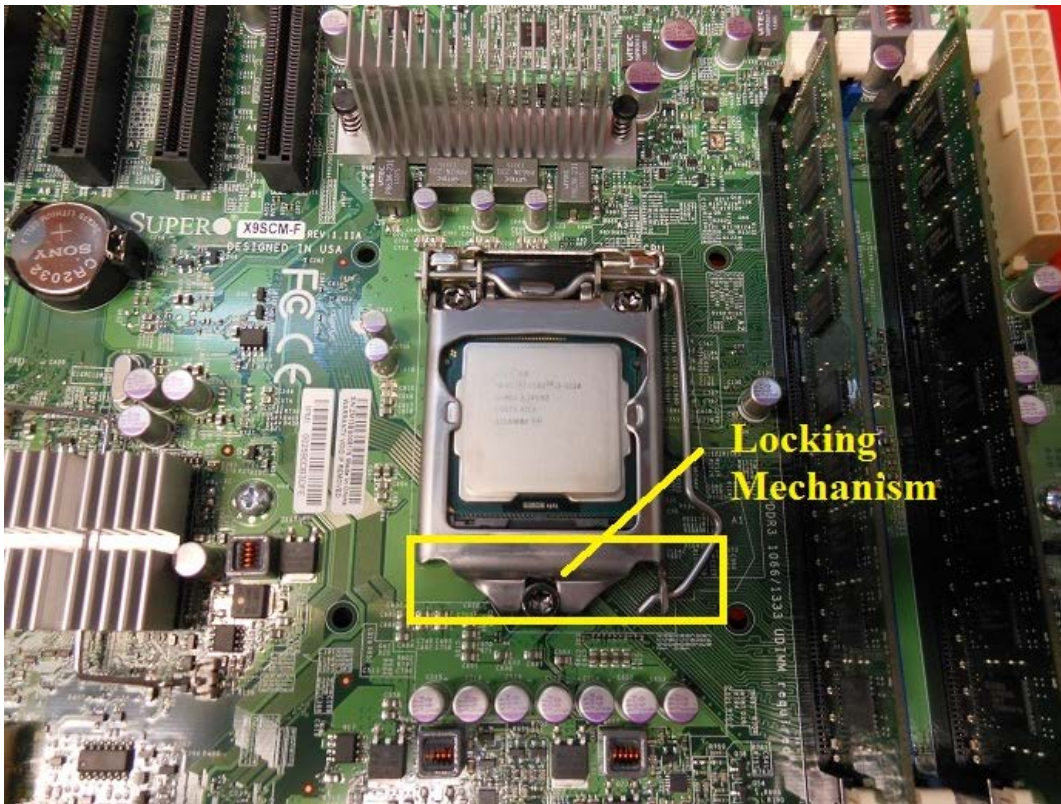
- Install the **Processor**.
 - The processor can only be installed one way.
 - Make sure the **notches** in the CPU line up with the notches in the CPU slot.



- Place the **CPU Cover** back onto the CPU.



- Clamp the CPU Cover down using the **Locking Mechanism**.



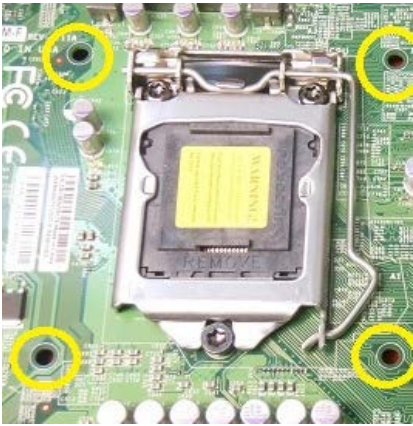
- The **Processor** comes with an installation booklet. Place this into the **envelope** designated for paperwork.

10.0 Processor Fan Installation

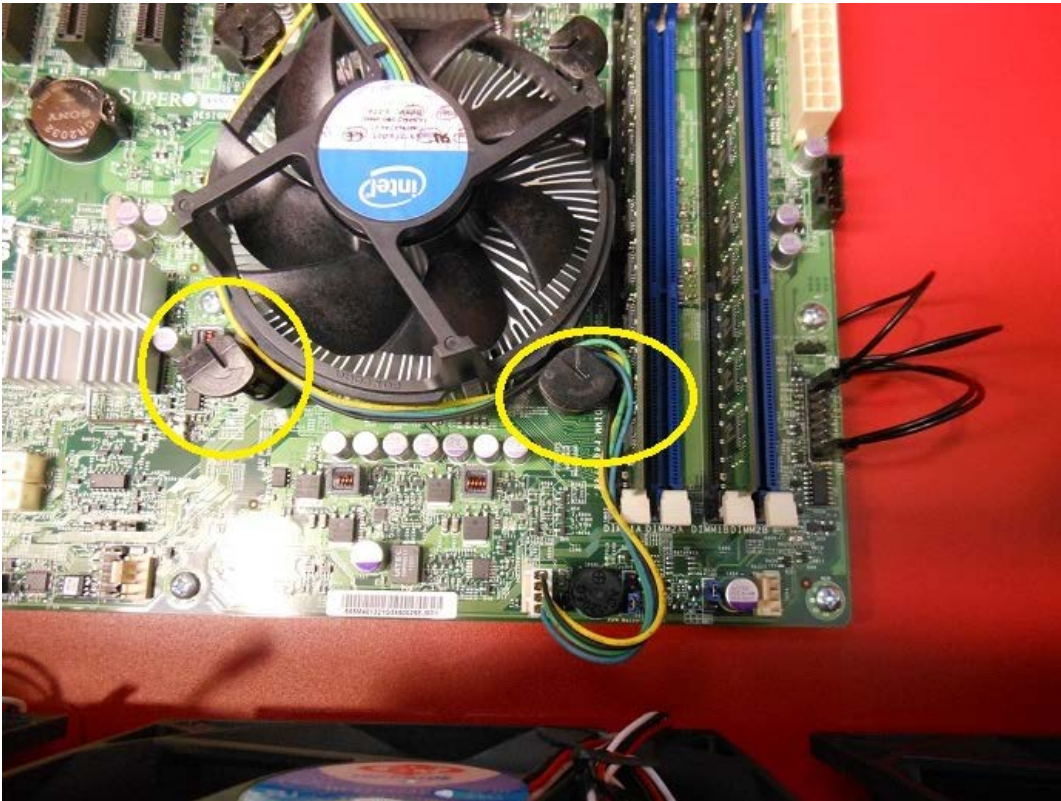
- Retrieve the proper **CPU Fan**.



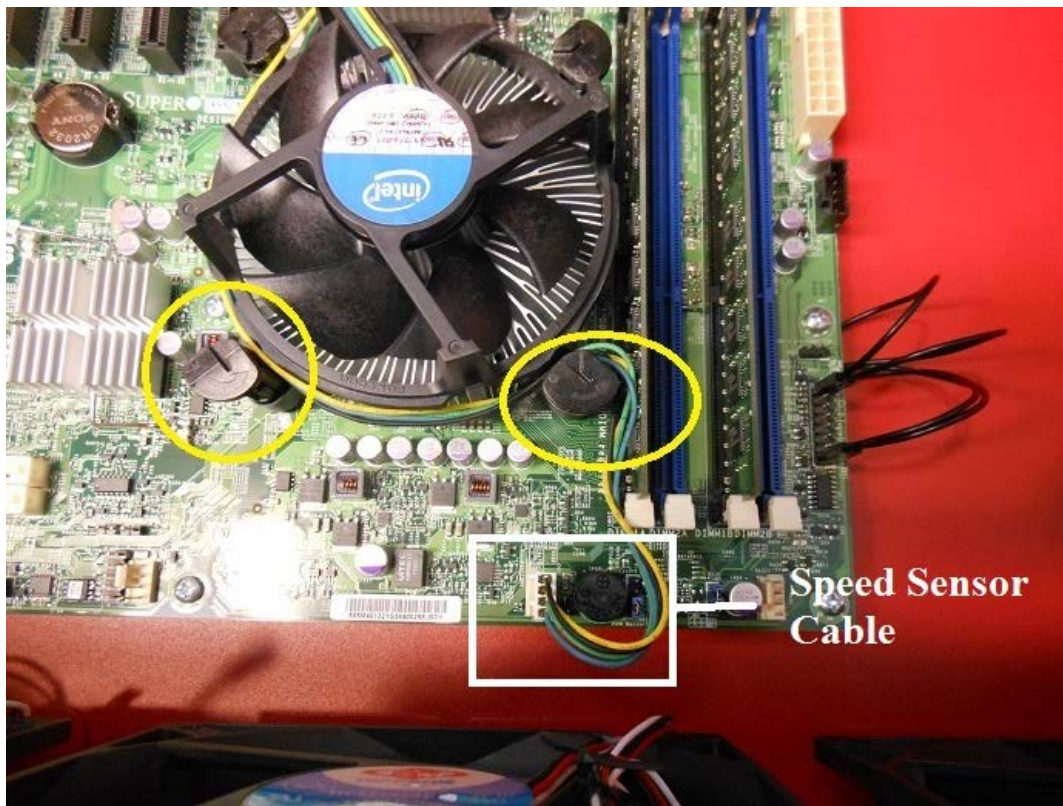
- Place the **CPU Fan** onto the processor. Locate the **4** Mounting holes on the motherboard.



- Hide the fan wires around the **Fan Posts** so they are out of the way.



- Install the **Speed Sensor** cable onto the motherboard.



- Snap the CPU Fan into place by pressing down on the **Fan Posts**.



11.0 SATA Card Installation

- Retrieve the proper **SATA Cards**.
 - 2 cards will be required.
 - The standard SATA card is the **Rocket 750**.



HighPoint
Technologies, Inc.

Rocket 750

Industry 1st Lowest Cost 40-Port SATA 6Gb/s Host Adapter

▶ SATA 6Gb/s Port Multiplier Architecture Design

▶ *[Blurred text]*

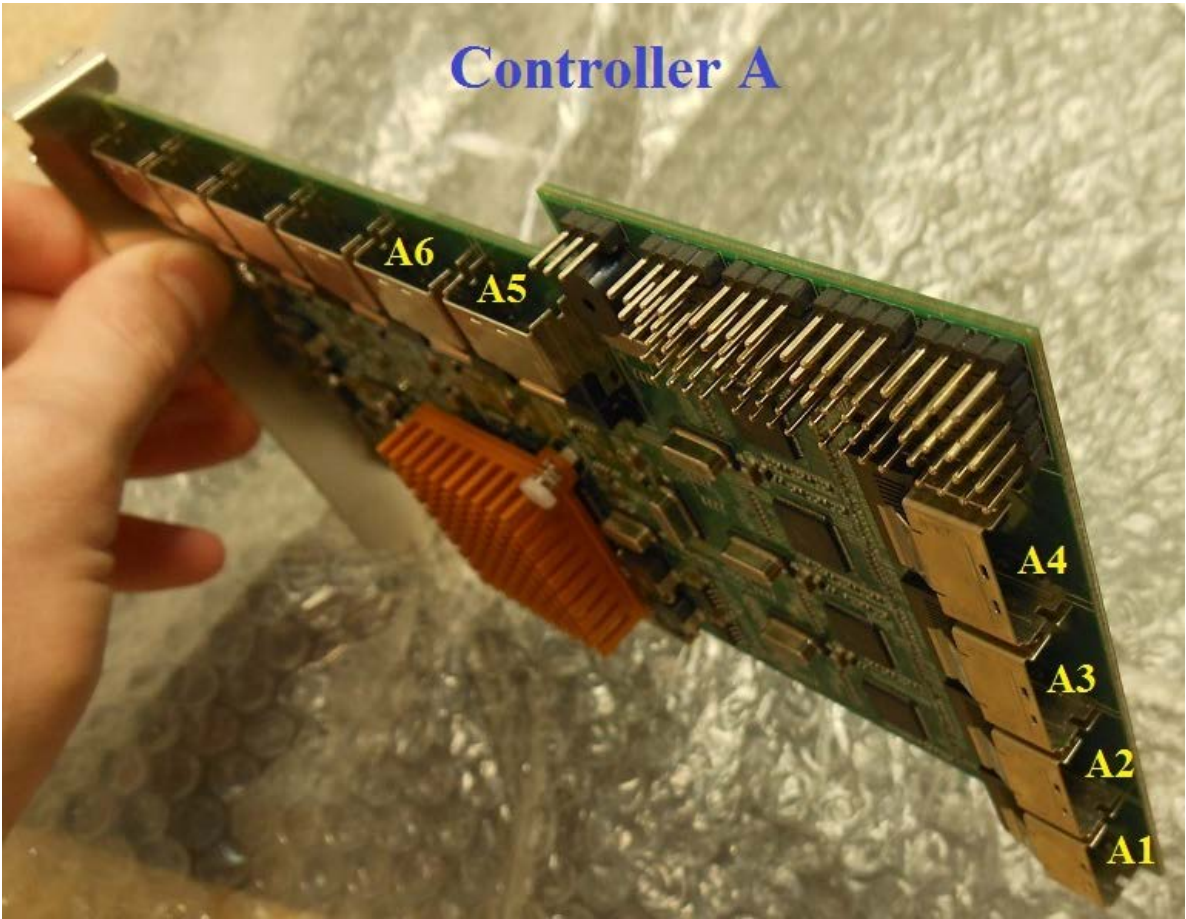
▶ Intelligent Storage Health Manager





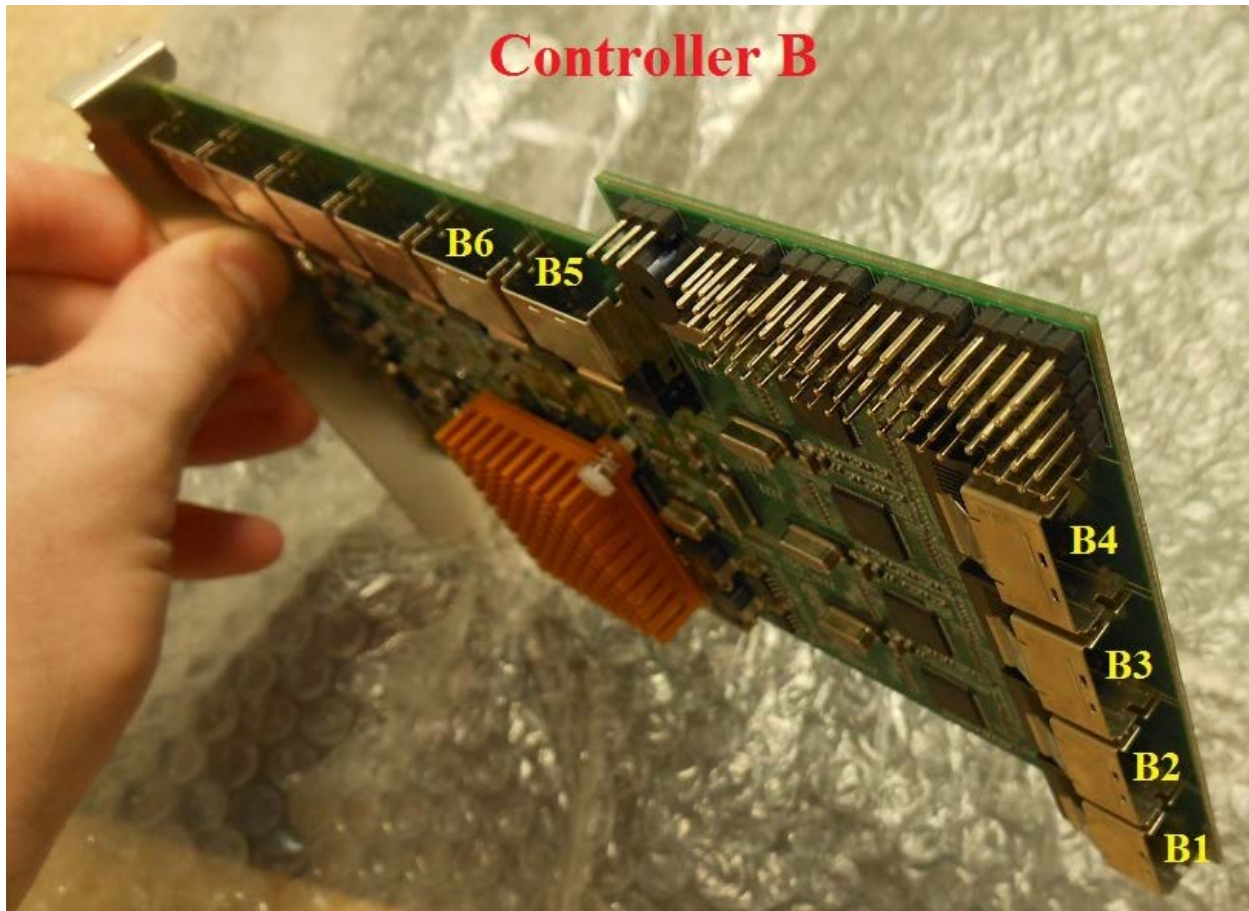
■ Controller A

Controller A

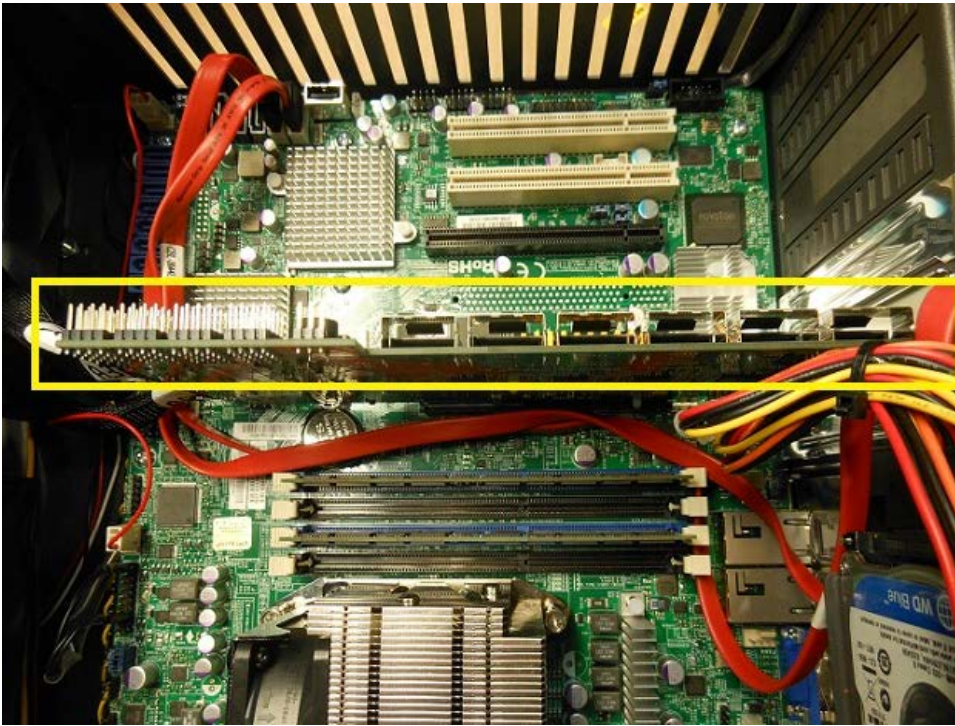


- Controller B

Controller B



- Install **1** SATA Card into the **first** slot.



- Ensure the mounting holes are **tapped** before installation.
- Use **6-32 x 1/4 Pan Head Zinc screws** to install all SATA Cards.
- Install blank plates over the remaining slots in the **Rear Panel**.



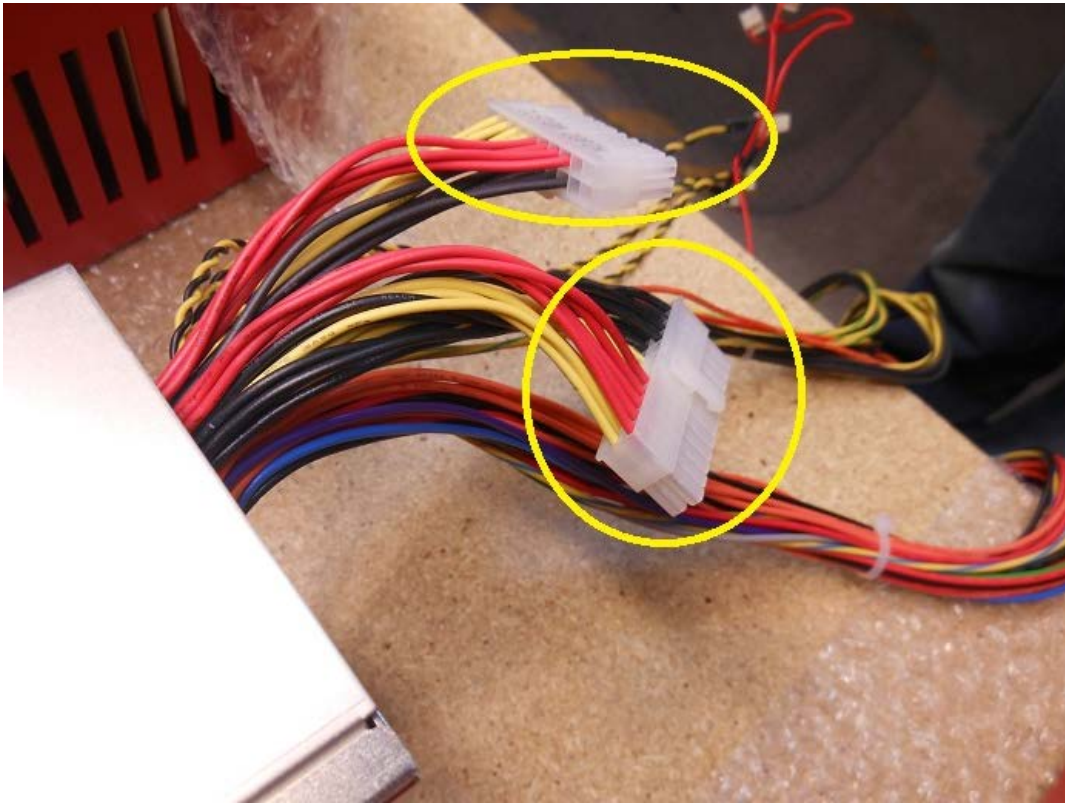
12.0 Power Supply Wiring & Installation

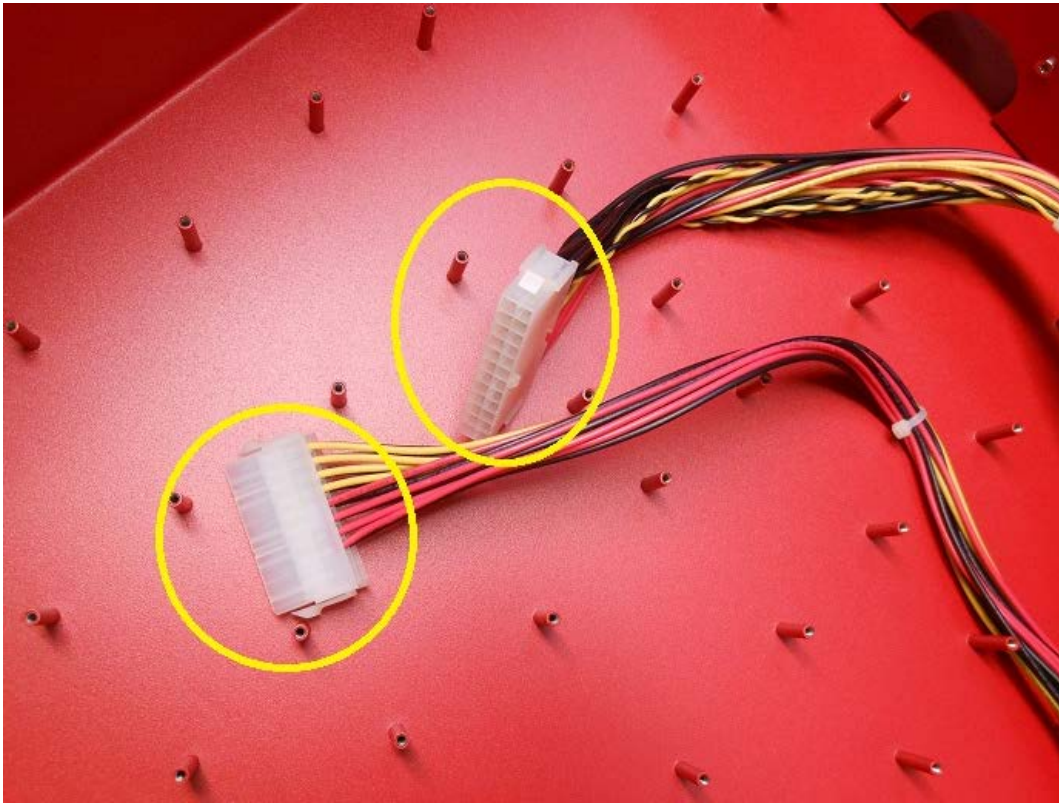
A) Wiring

- Retrieve a proper **Power Supply**. This may be **Standard** or **Redundant**.



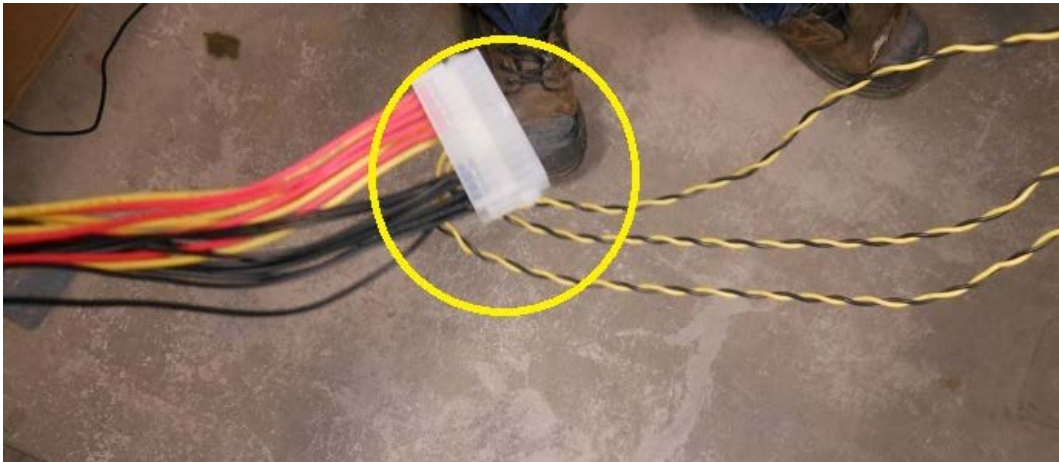
- Disconnect the 2 Extension Harnesses from the power supply.



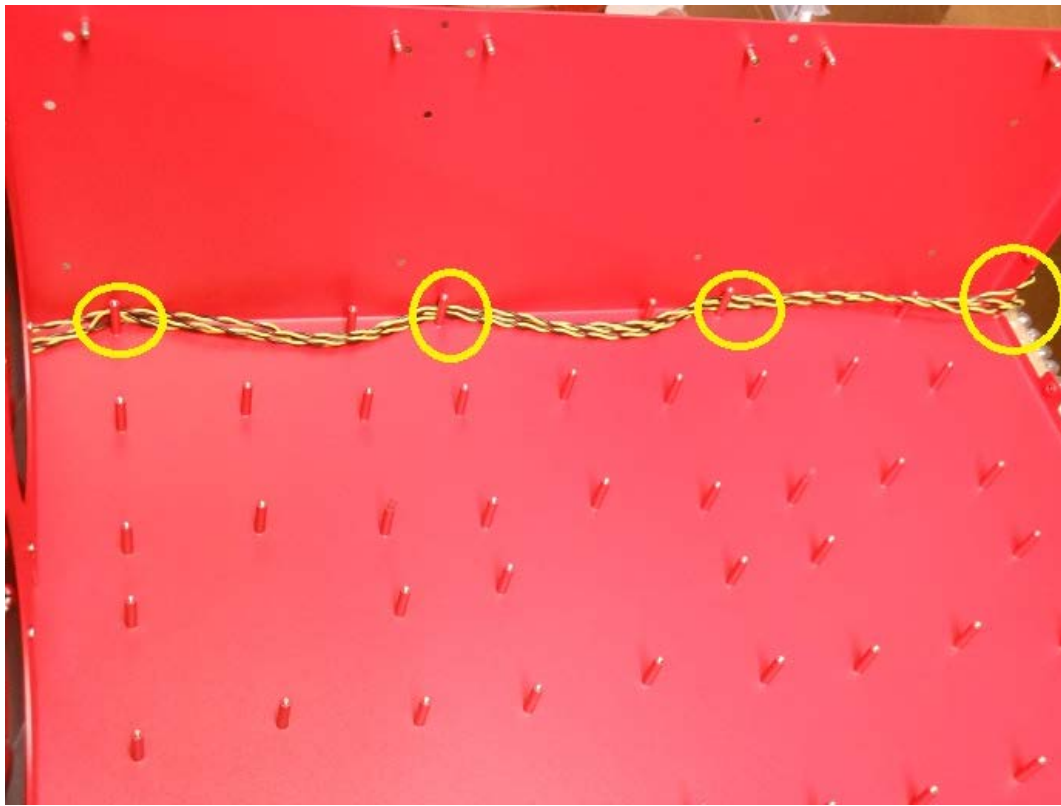


Extension Harness #1 Wire Routing

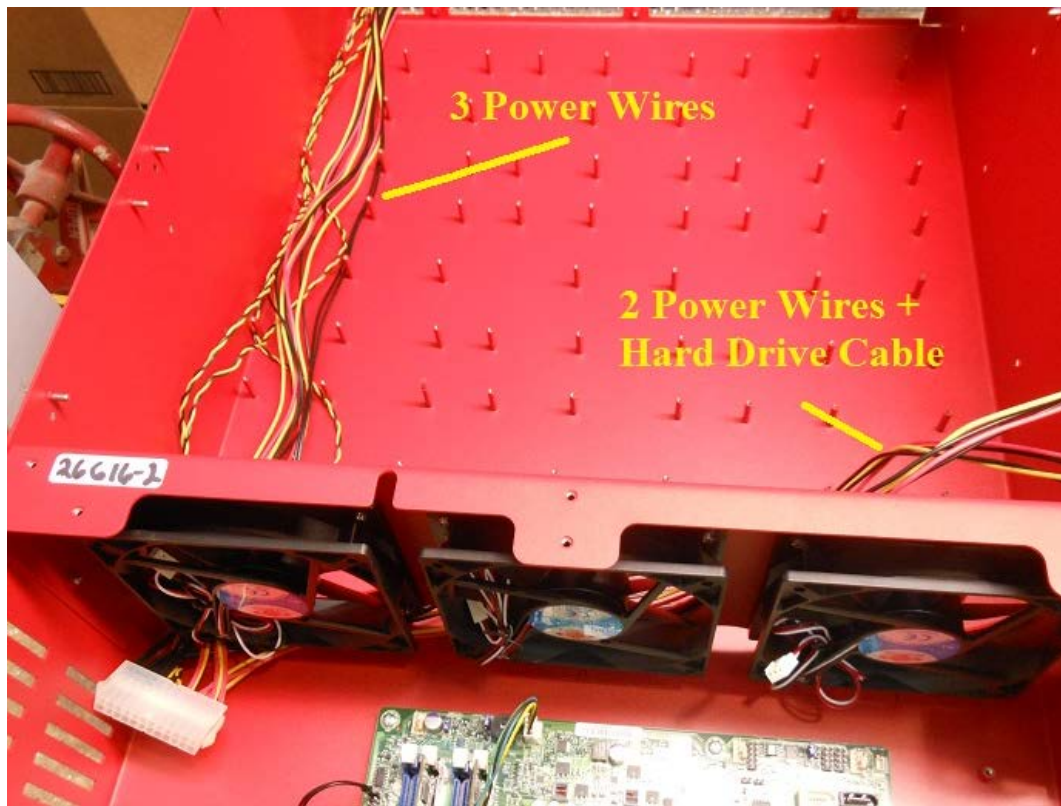
- Remove the plastic **Wire Ties** holding the wires together and separate the **3 Yellow/Black** wires from the bundle.



- Run the **yellow/black** wires against the **side** and to the **end** of the **chassis**.
- Push the wires **behind** the **first, third & fifth** standoff in the base of the chassis; leave the wire hang off the end of the chassis.

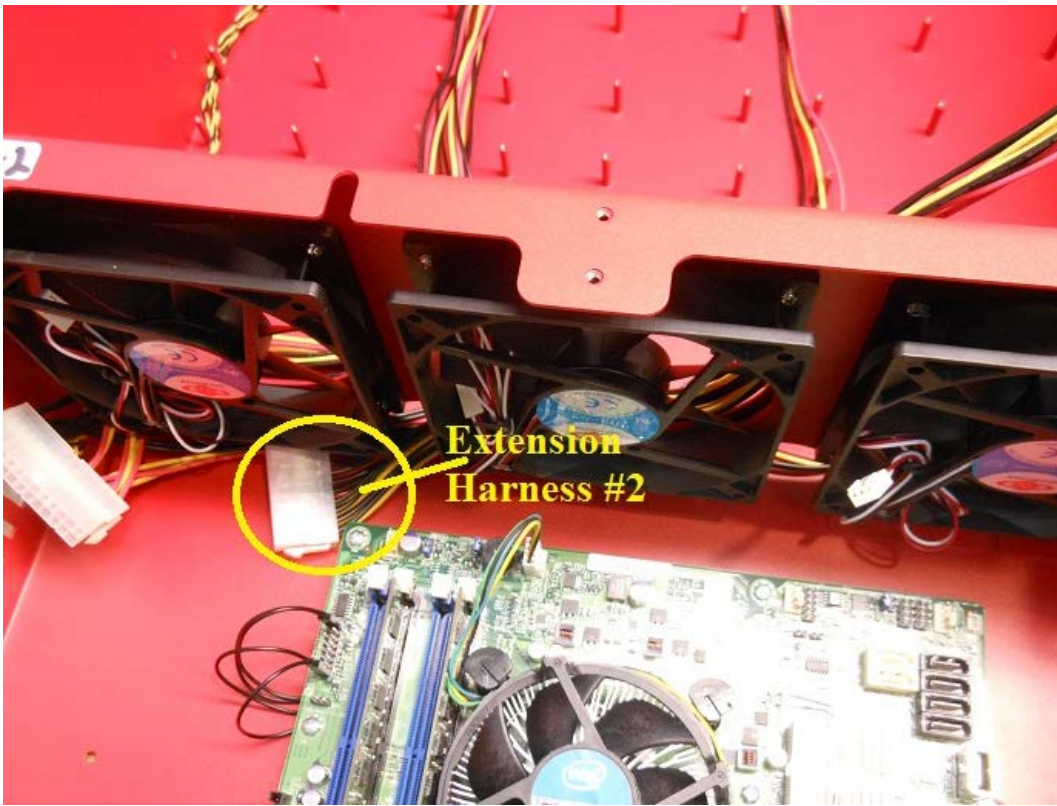


- Run **3** power wires to the left side of **Fan #1** from the **Rear** of the chassis.
- Run the remaining **2** power wires and the **Hard Drive Cable** to the right side of **Fan #1** (between Fan #1 and Fan #2).



Extension Harness #2 Wire Routing

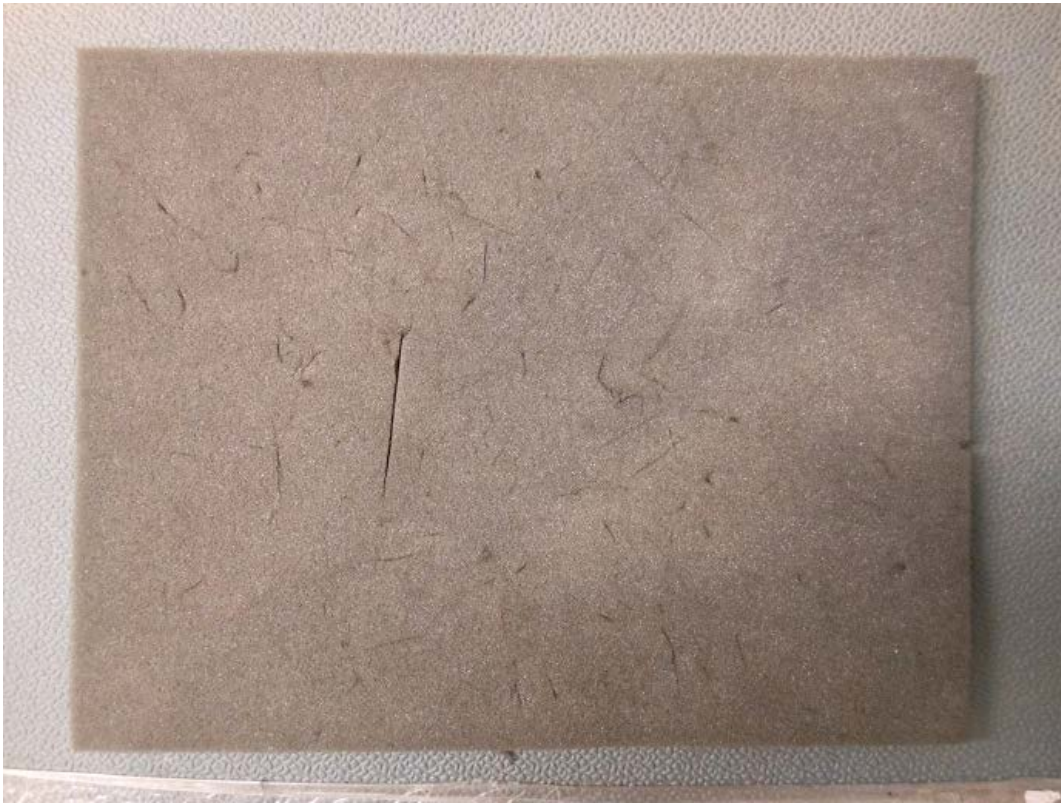
- Route all of **extension harness #2** through the right side of **Fan #1** (between Fan #1 and Fan #2).



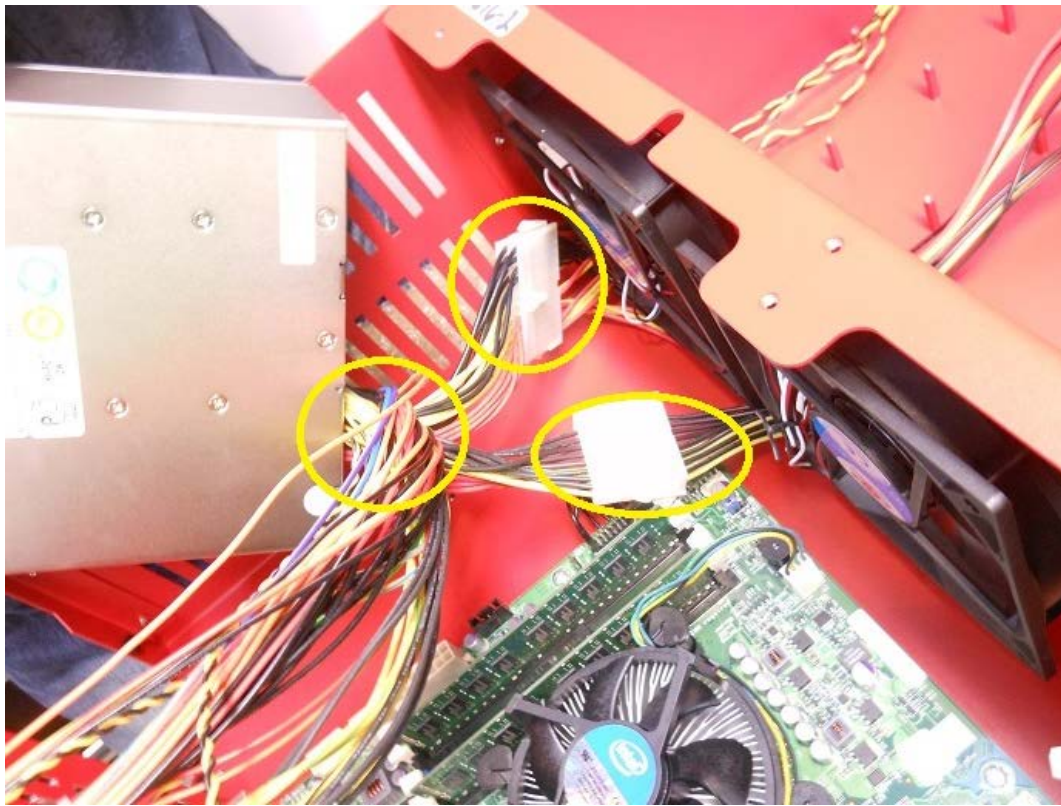
B) Power Supply Installation

- Locate a piece of foam.

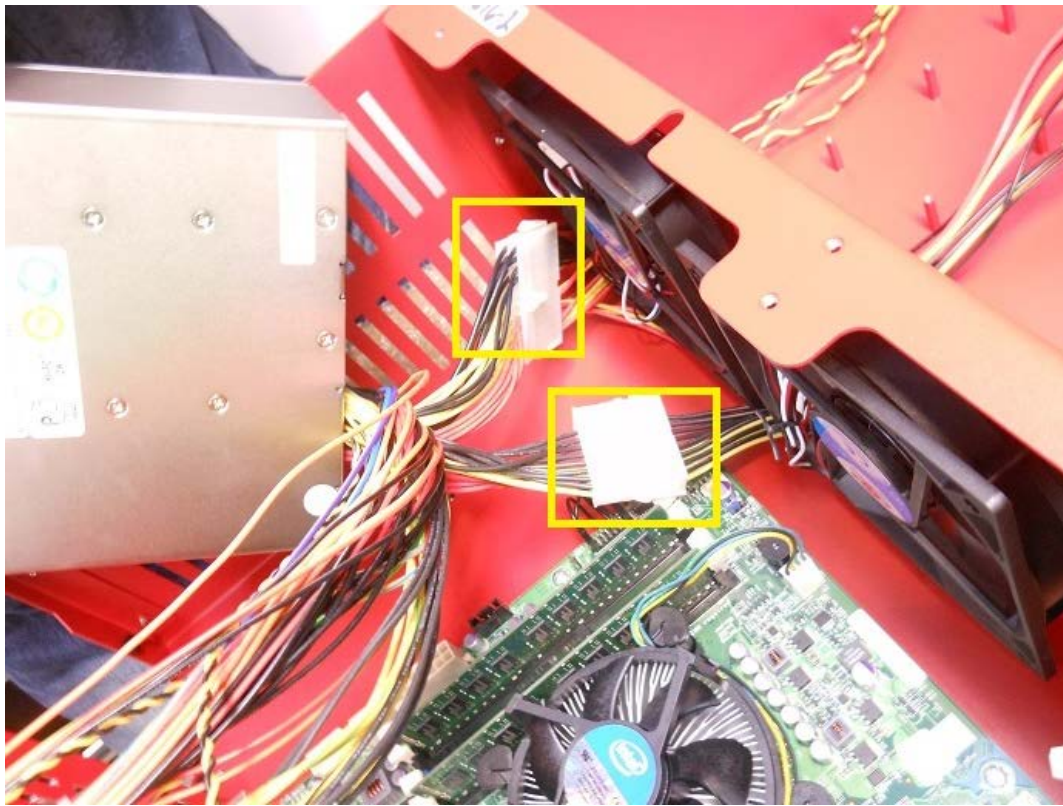




- Place the power supply on the foam to prevent damage to the power supply and chassis during installation.
- Make sure the **Connectors** attached to the power supply are on the bottom closest to the base of the chassis.



- Connect the **Power Supply Cables** to the extension harnesses - you should hear a **"Click"**.



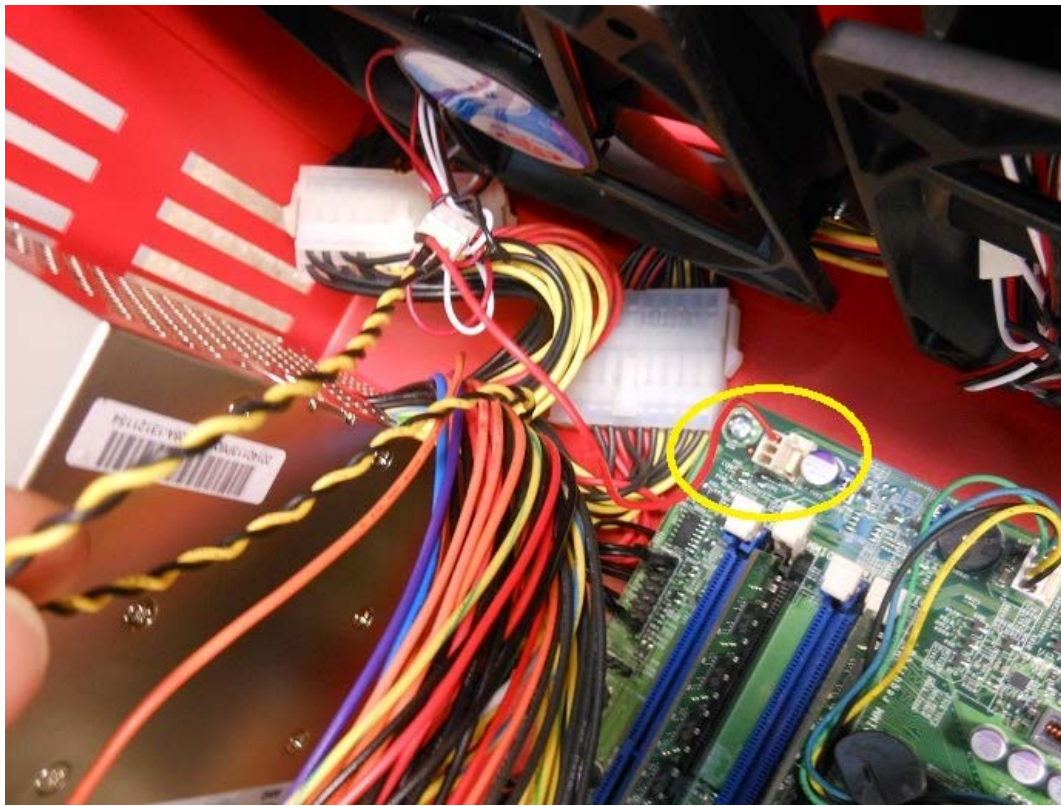
- **Slide** the power supply into place.



- Secure the **Power Supply** to the **Rear panel** using **4 x 6-32 x 1/2 Pan Head Stainless Steel screws** and **4 x silicone washers**. Snug only - **DO NOT** over-tighten.



- Plug in the remaining wires into the appropriate locations on the **motherboard**.
 - Attach the **Power Supply Fan Wire**.



- Attach **Sticky Pads** to the side of the **Power Supply**.



- **Tie-Wrap** the wire bundle in two places using wire ties.
- Slip the wire ties through the slots in the front of the **Sticky Pads** and secure the bundle to the side of the power supply.



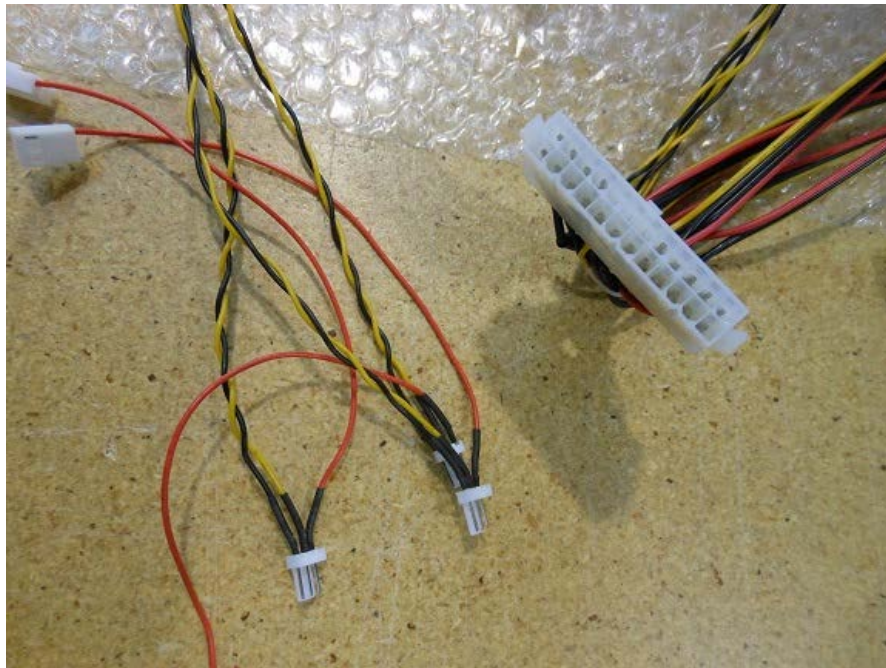
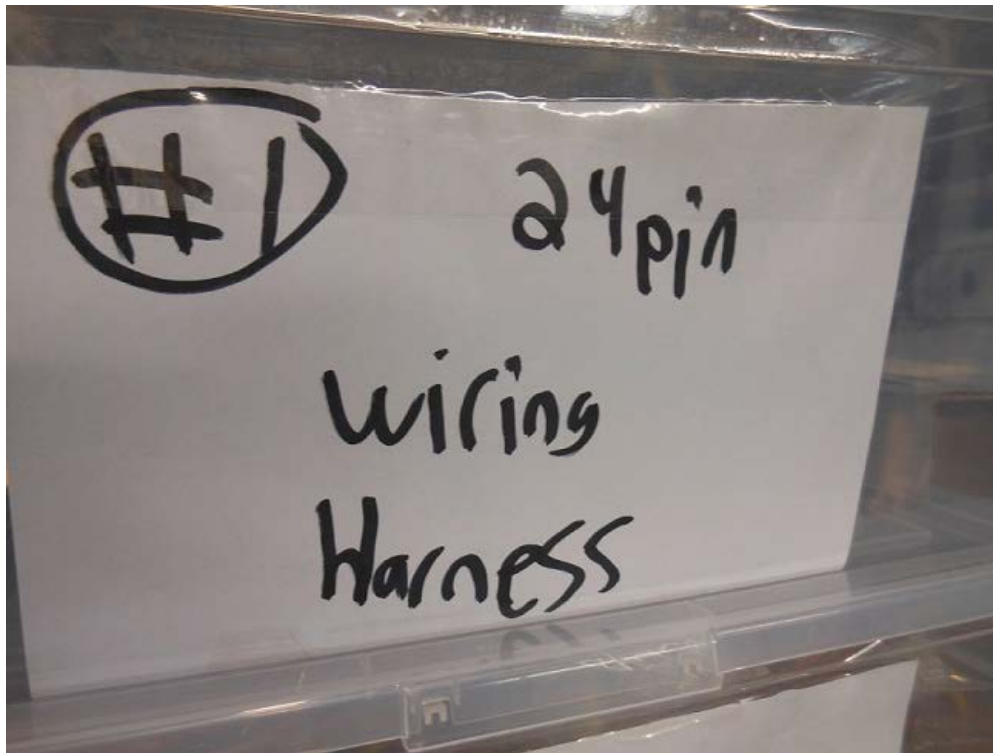
- Install the power cables for the **Motherboard Main Power** into the designated slots on the motherboard.



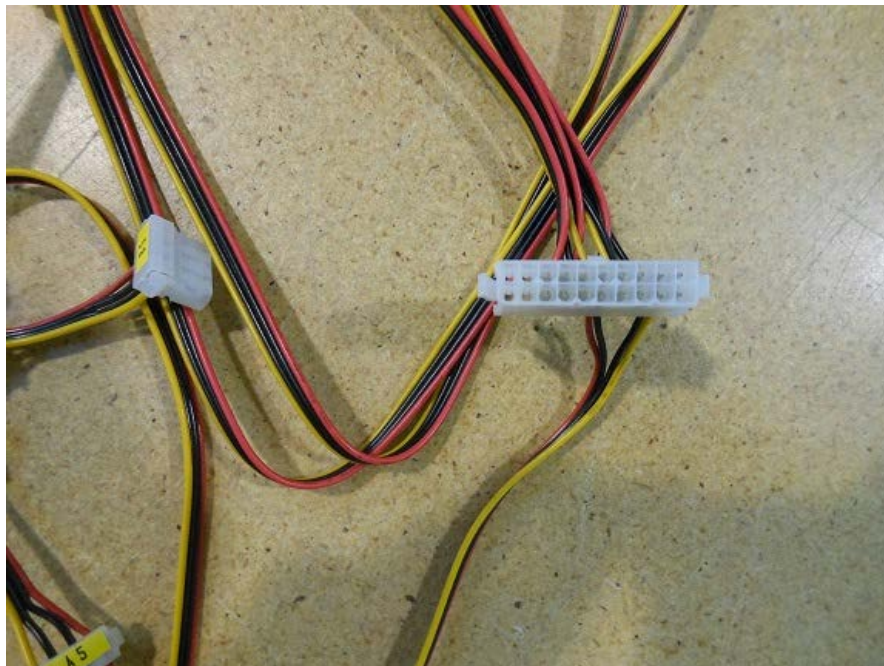
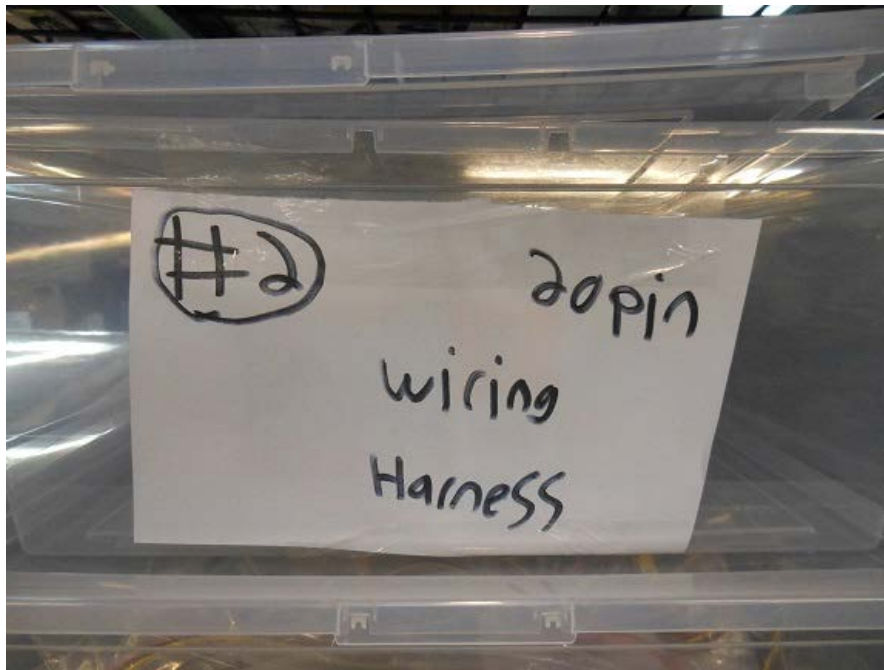
- Install the **Hard Drive Power Cable** and **Auxiliary Cable**.

13.0 Back Plane Bracket Installation

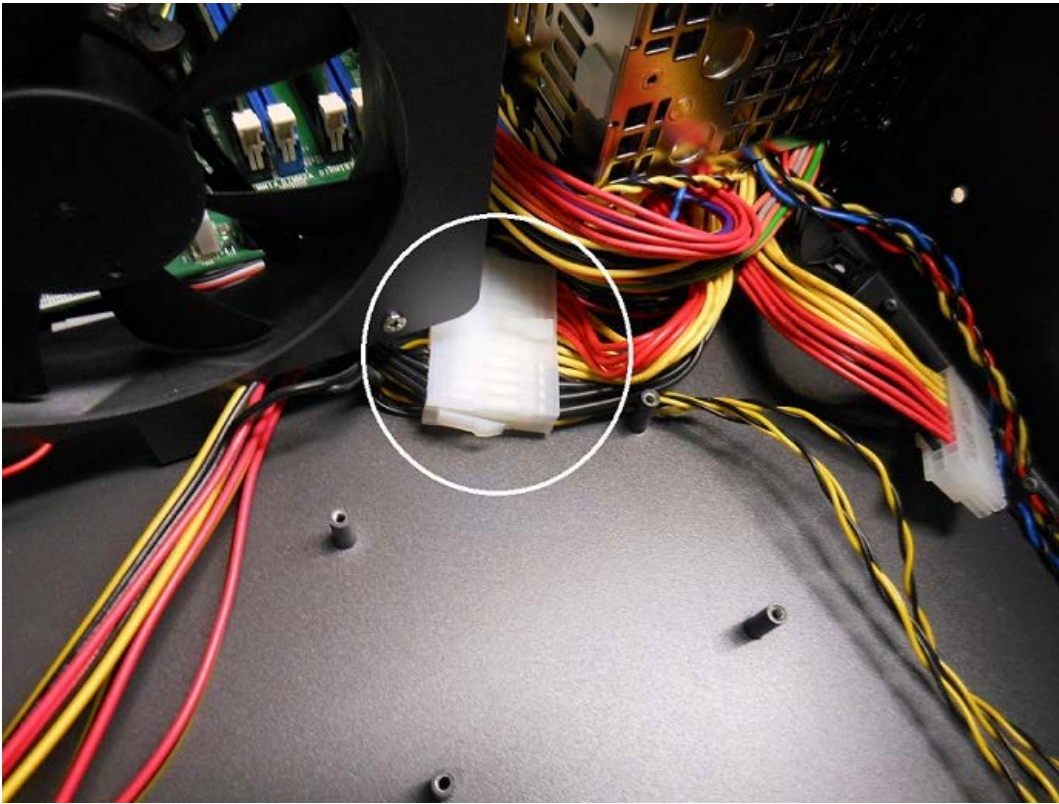
- Retrieve **2** wiring harnesses:
 1. **24-pin Harness** - this harness has the power supply connectors that attach to the front panel.



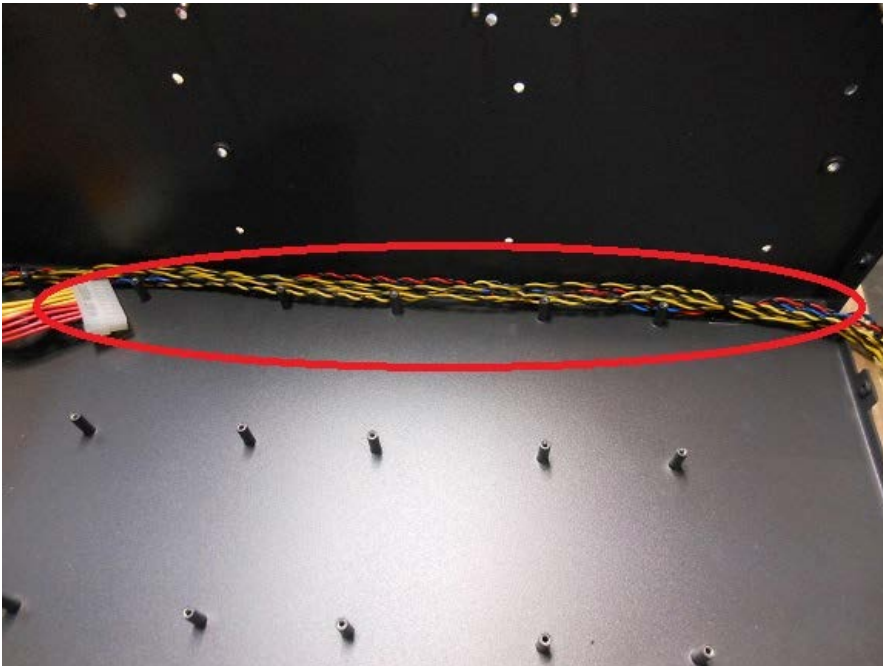
2. 20-pin Harness



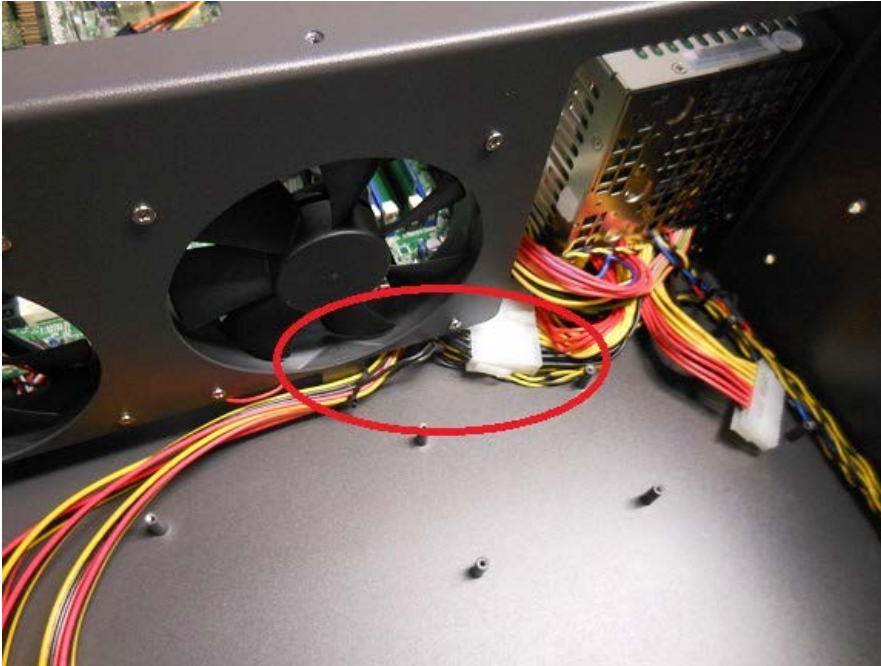
- Connect the **24-pin harness** to the 24-pin slot on the power supply.
 - Once connected, tuck away the wires and plastic connectors between the Fan and Power Supply.



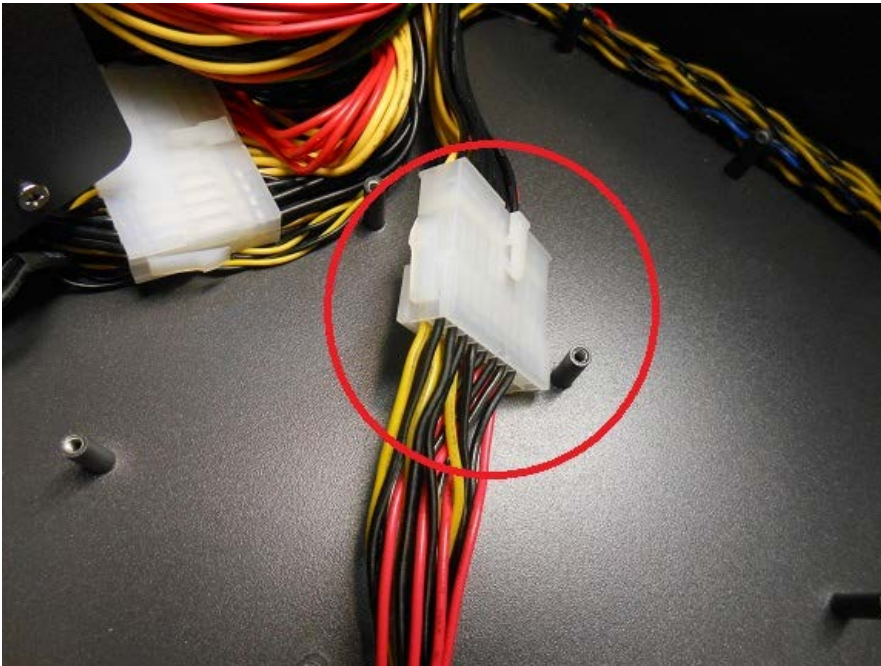
- Place the **excess** wires along the inside of the chassis and fasten with a wire tie.



- Tie wrap any wires near the fan to the base of the fan.



- Install the **20-pin** harness to the 20-pin slot on the power supply.
 - Once connected, tuck away the wires against the power supply.





- Tie-wrap the **24-pin** and **20-pin** harnesses together.



- The next steps involve installing the **Back Plane Brackets**.
 - Follow the proper **Wiring Diagram** for installation.

05 Rails Wiring

Top



A1 A1

B2 B1 B1

B6 B5 B5



A2 A2

A4 A5 A5

B4 B4 B3



B2 B3

A6 A6

A4 A3 A3

Bottom

Tags for Wires going to Rocket 750s

B6 B5 B4 B3



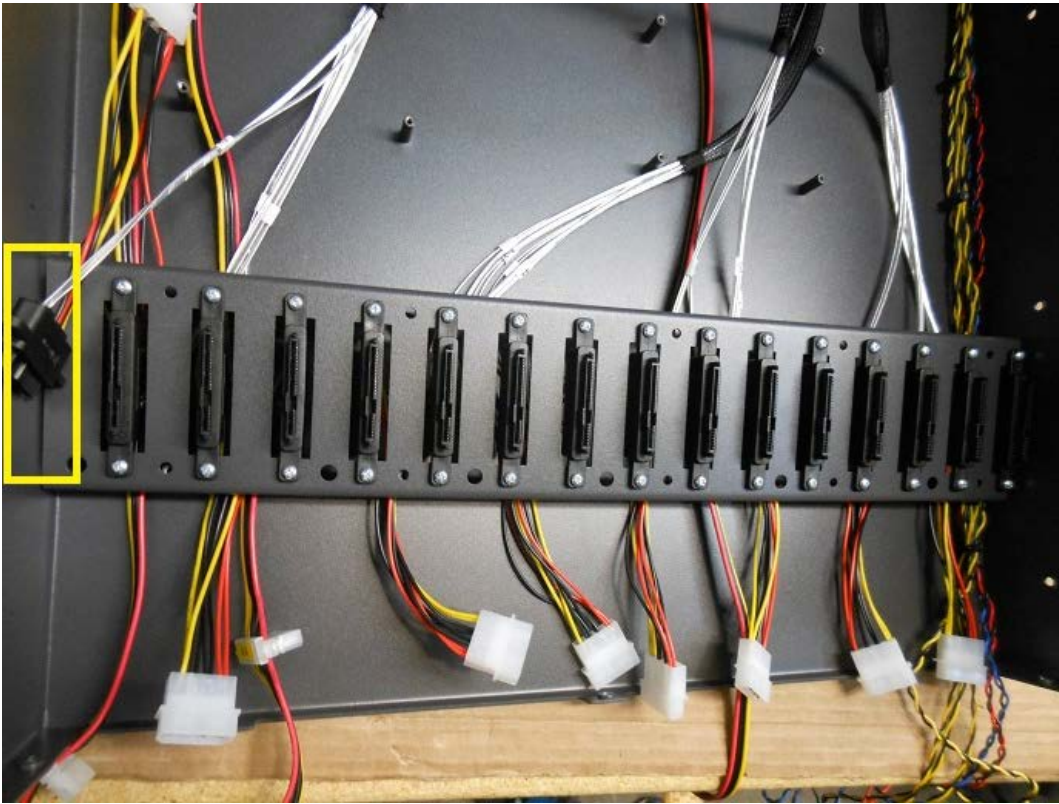
A5 A6 B1 B2



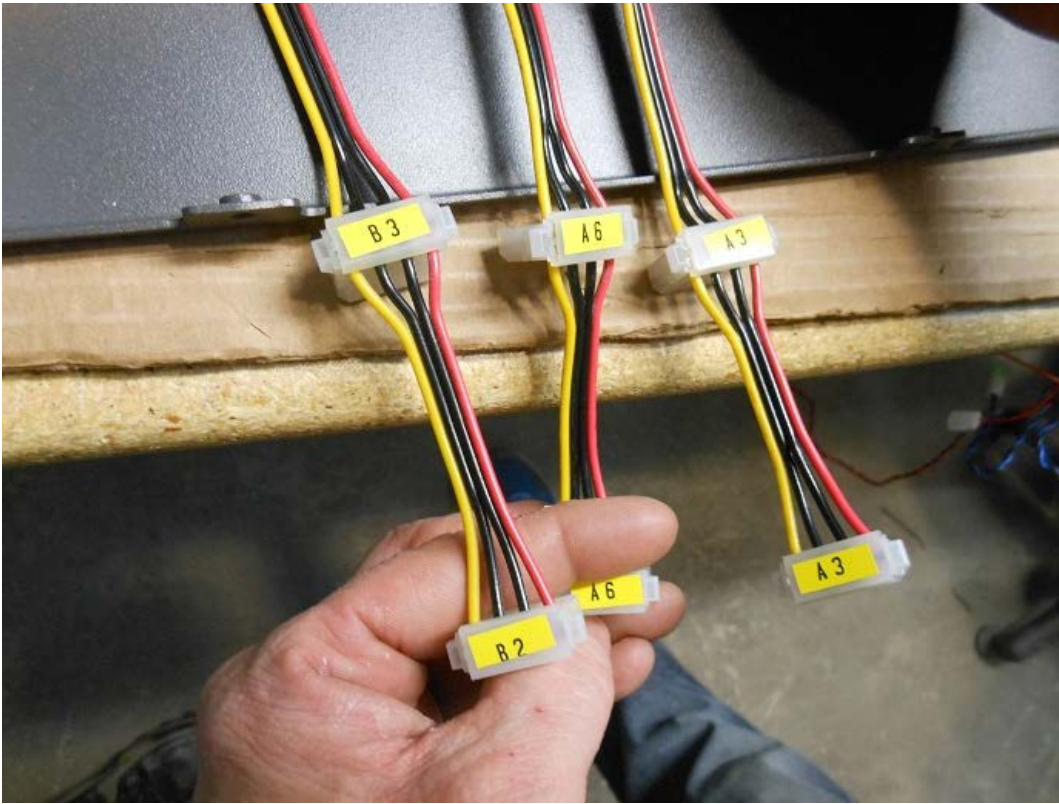
A4 A3 A2 A1



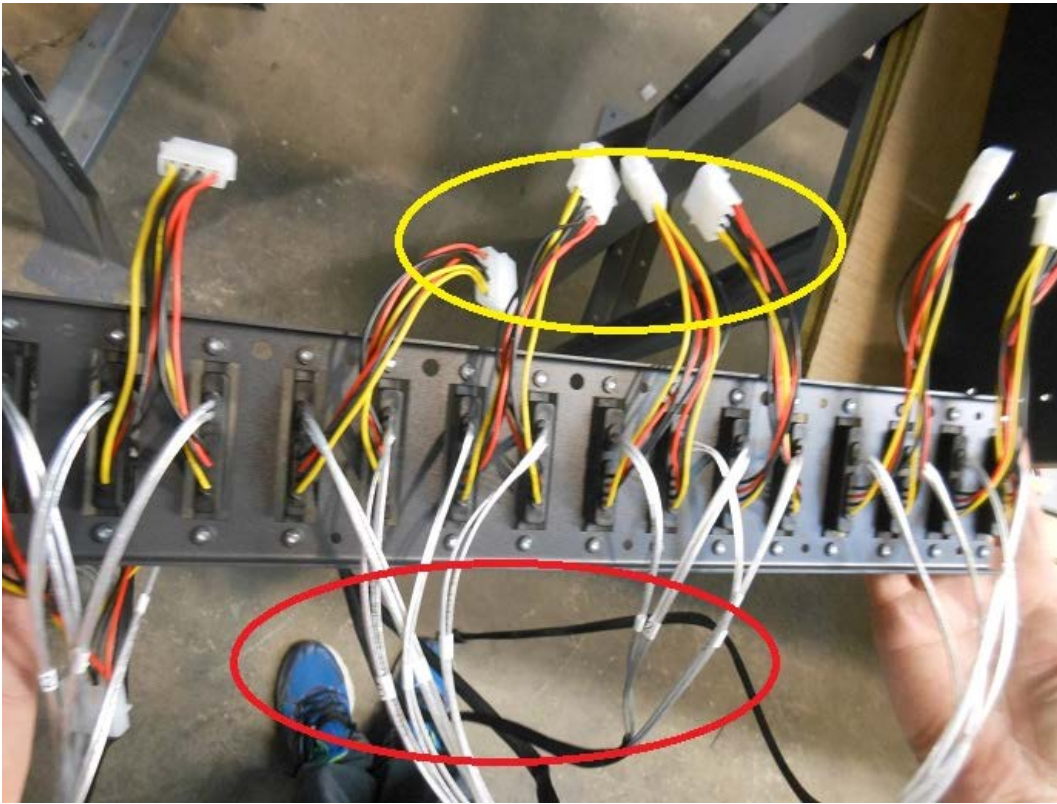
- Locate **Back Plane Bracket #1**.
 - This bracket has no open slots in it but has an extra connector hanging off the side.



- Locate the following labelled wires: [A3, A3], [A6, A6] and [B3, B2].



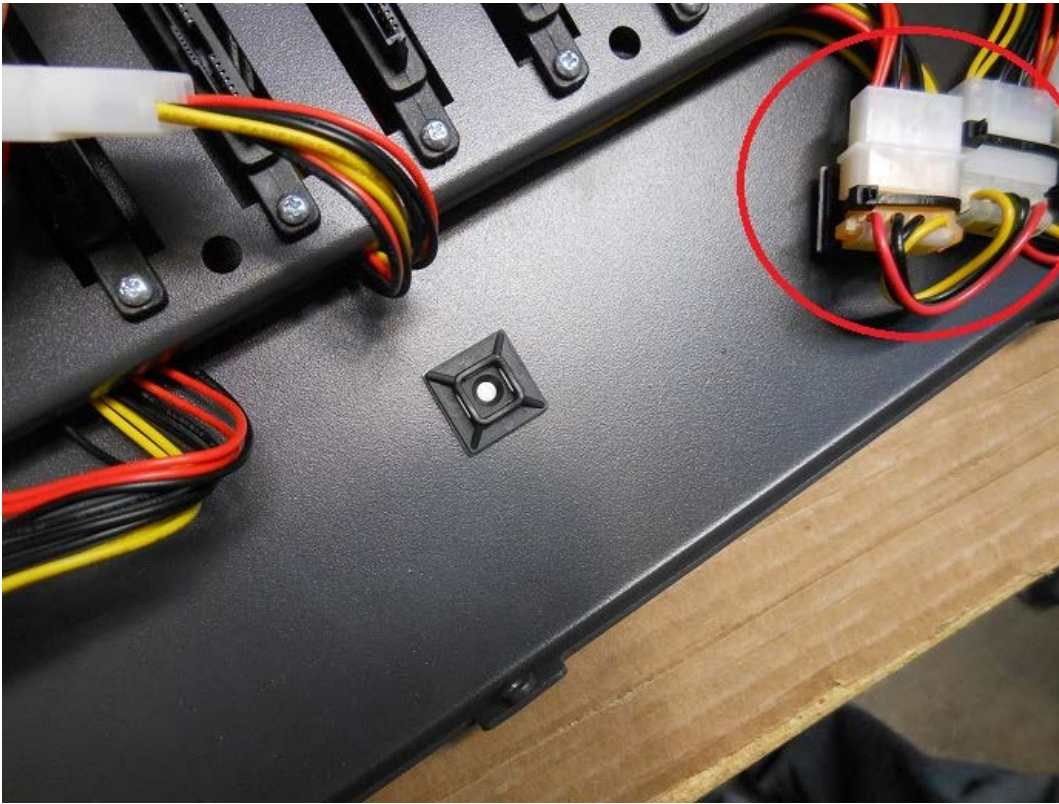
- Flatten out all the cords to allow for easy installation. Place the power cables to one side and the SATA cables to the other side.



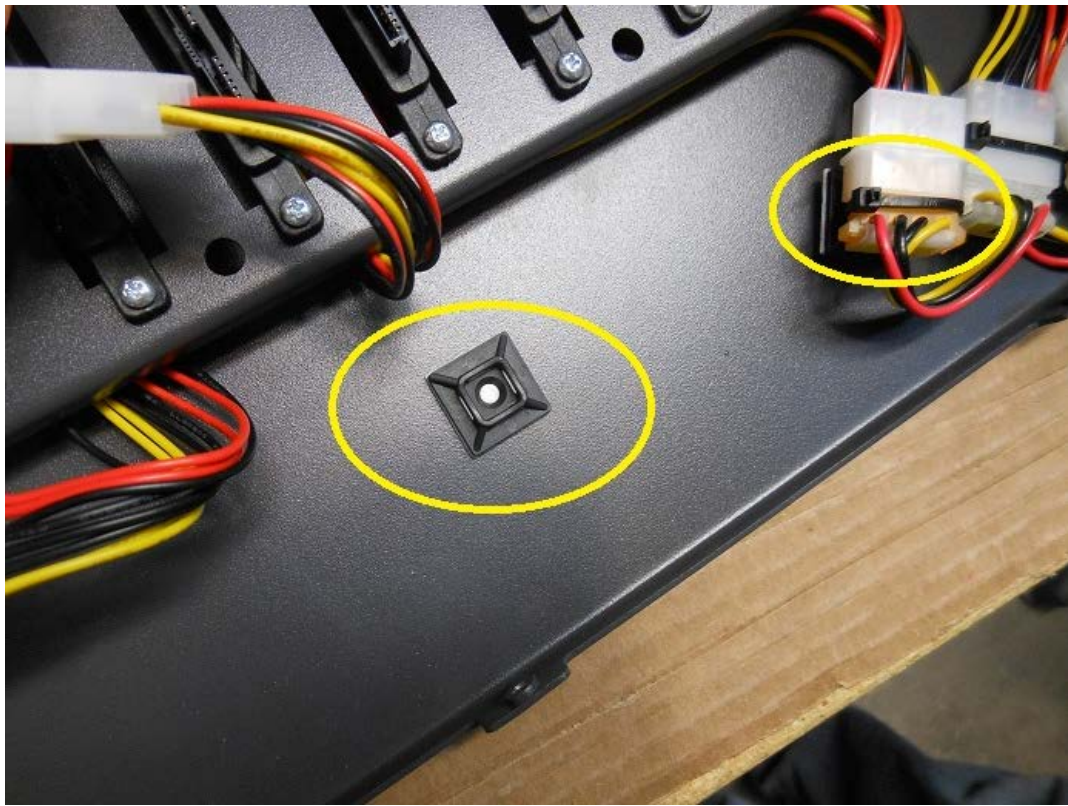
- Place **Bracket #1** into position.
 - Make sure all wires are tucked away from any standoffs.
 - In general, make sure all wires are situated such that the back plane brackets can be installed over the wires.
 - Install the bracket using **10 x 6-32 x 3/8 Pan Head screws**.

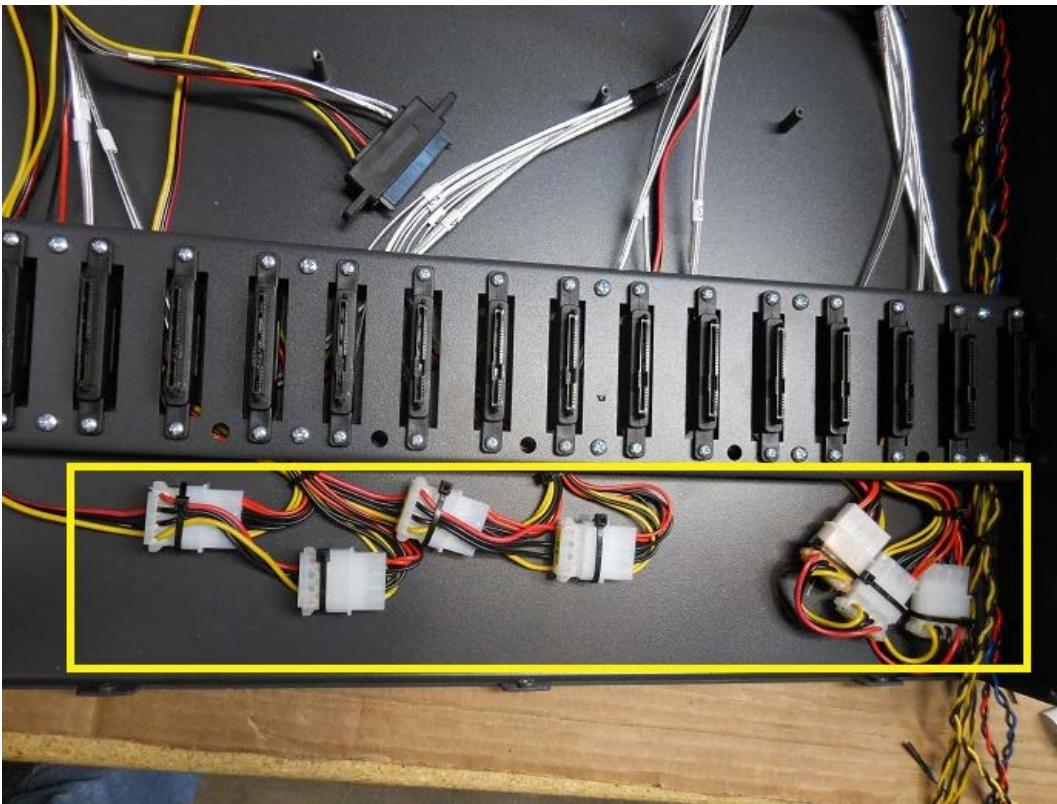


- Starting **Right-to-Left**, clip the plugs into the connector slots.

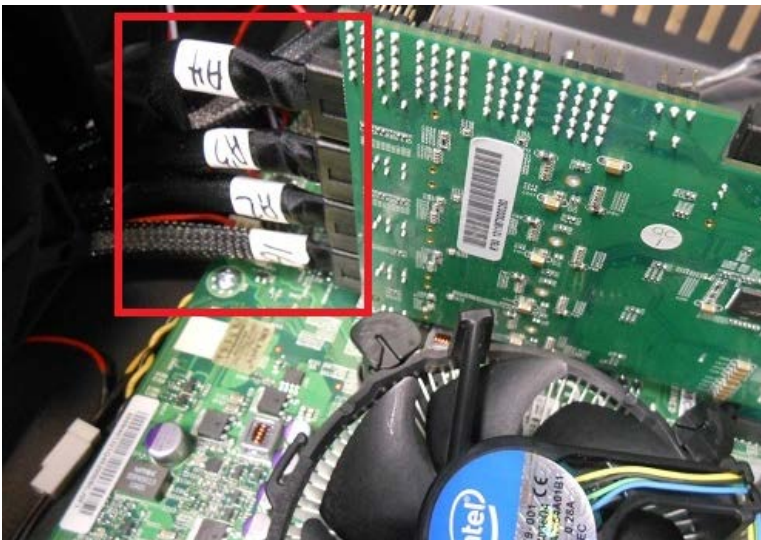


- When all plugs are connected, secure to the chassis using **Sticky Pads** and **Wire Ties**.

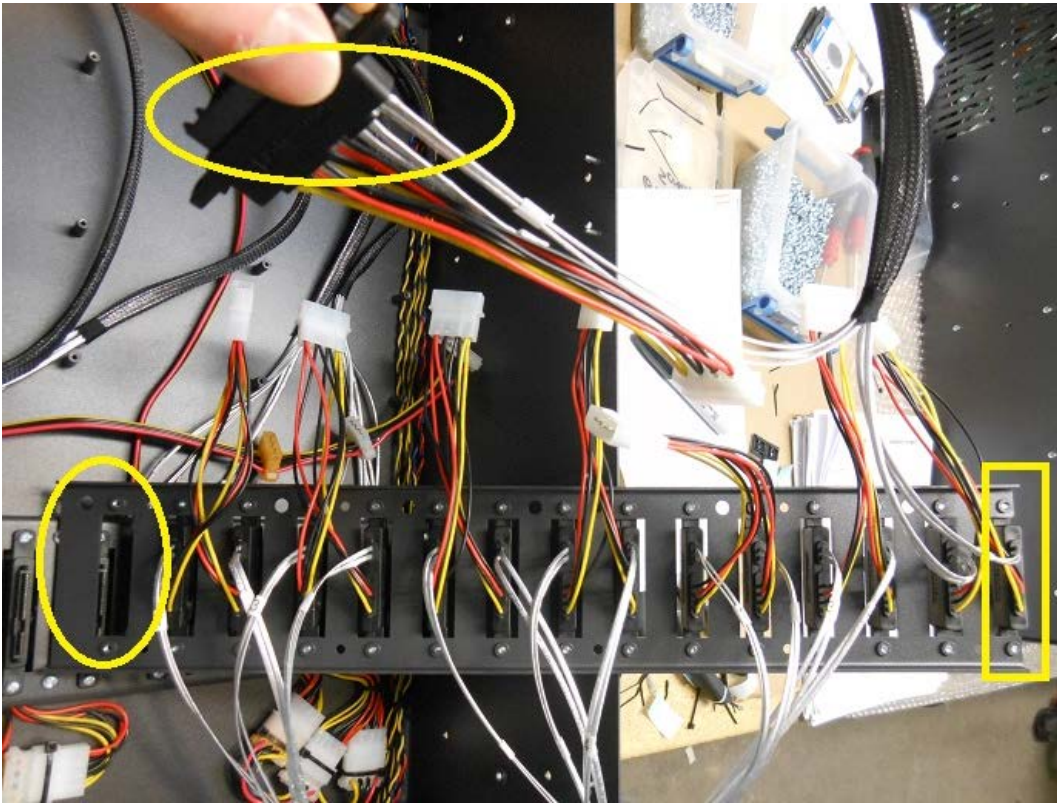




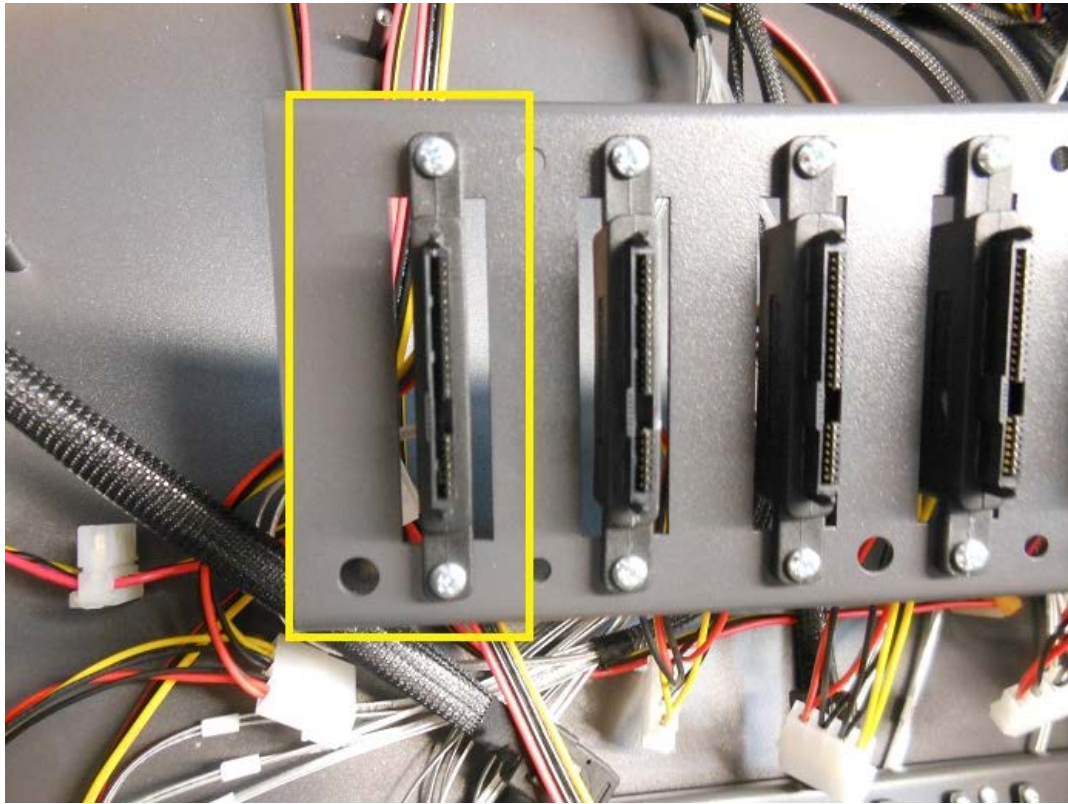
- Label the SATA cables on Bracket #1 before installing into SATA card #1.
 - Label the 4 SATA cables **A1**, **A2**, **A3** and **A4**.
 - Starting at the bottom port of the SATA card, install the 4 SATA cables.

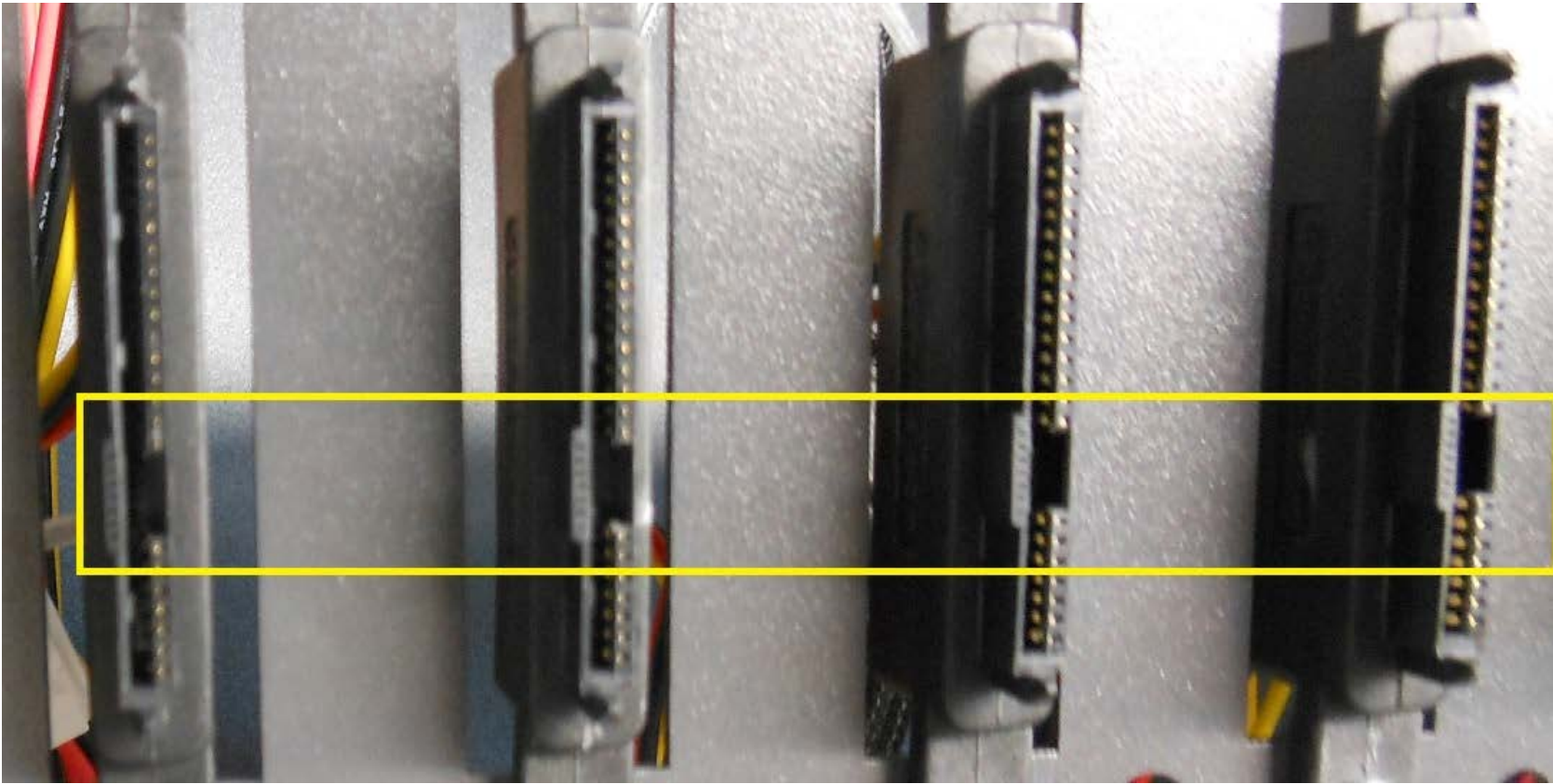


- Locate **Back Plane Bracket #2**.

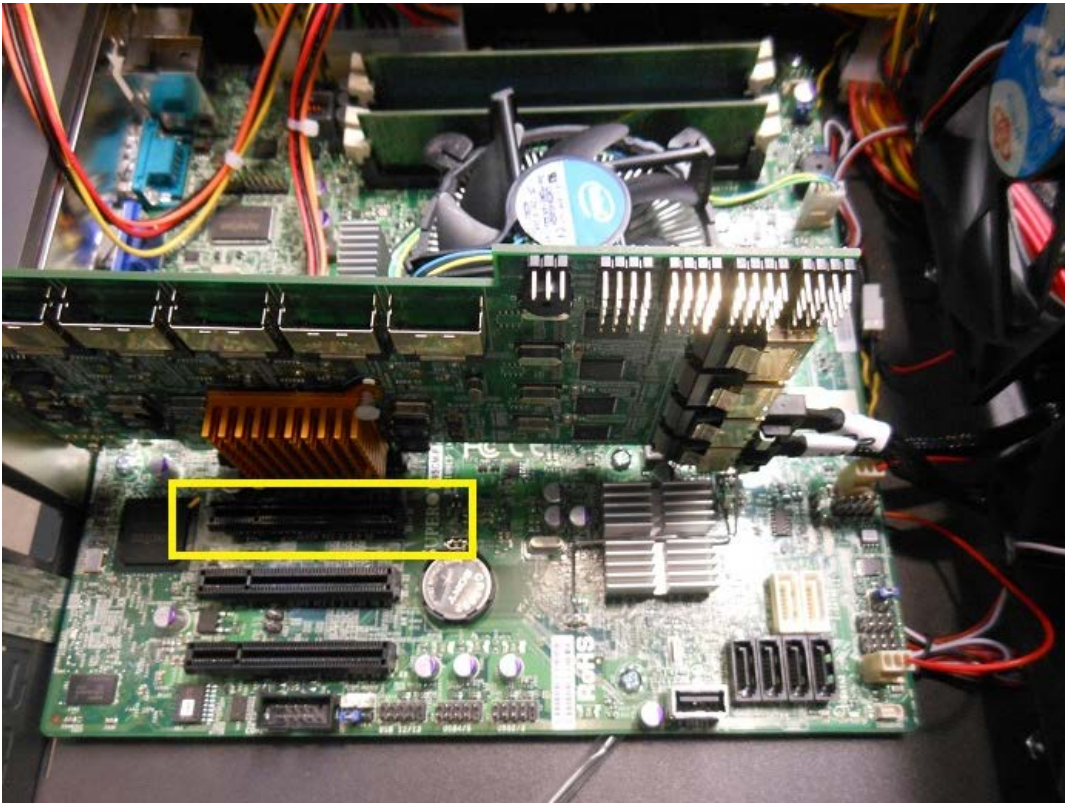


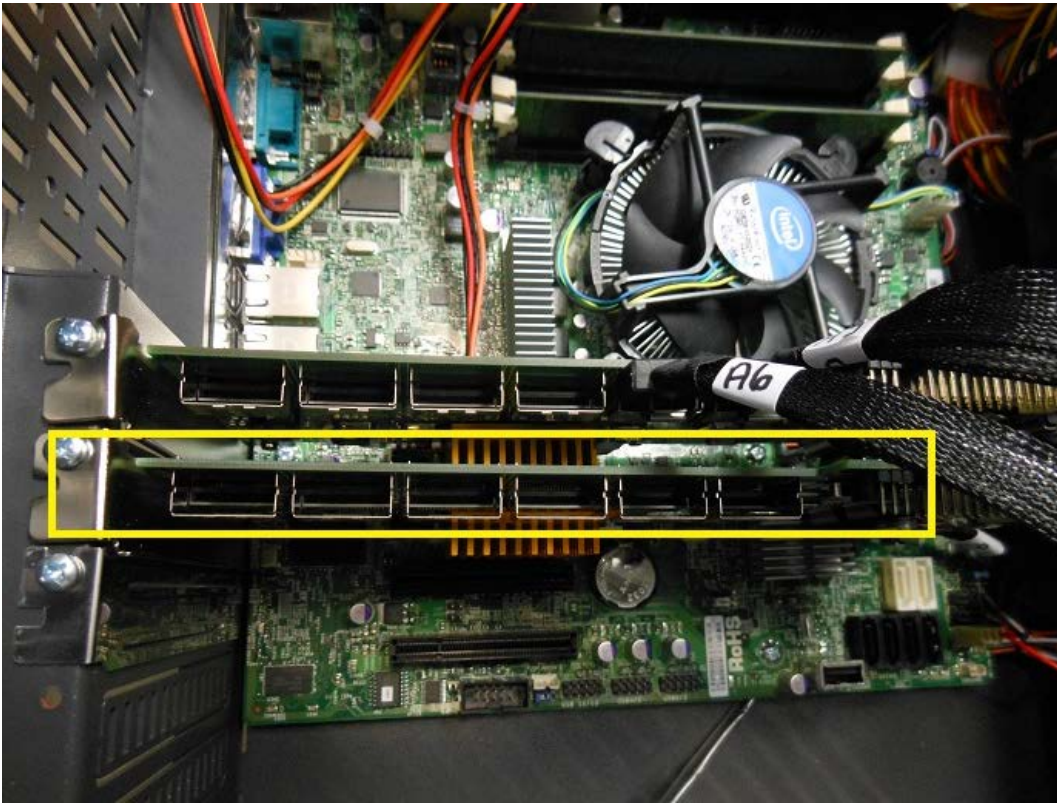
- Locate the following labelled wires: **[A2, A2]**, **[A4, A5, A5]** and **[B4, B4, B3]**.
- Attach the extra connector from bracket #1 to the open slot in Bracket #2.
 - Make sure the notches in all connectors are in the same orientation.



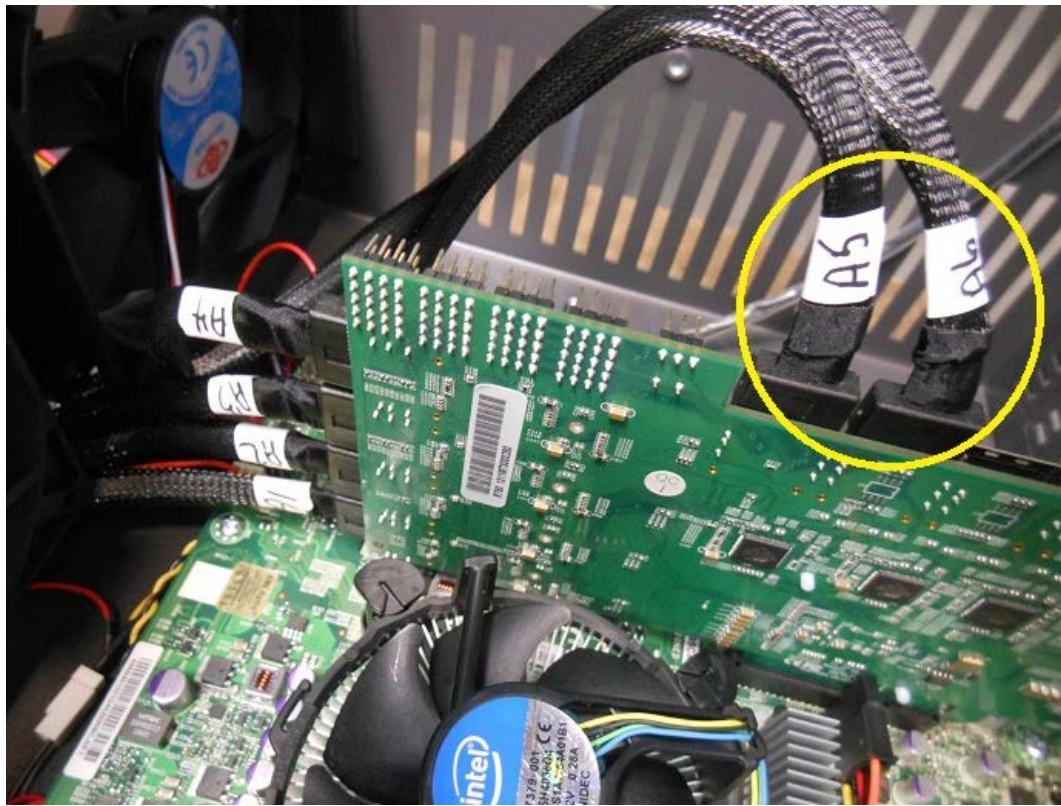


- Install Bracket #2 to the chassis in the same manner as Bracket #1.
- Label Bracket #2 SATA cables as: **A5, A6, B1** and **B2**.
- Install a second **Rocket 750** SATA card in the slot next to SATA card #1.

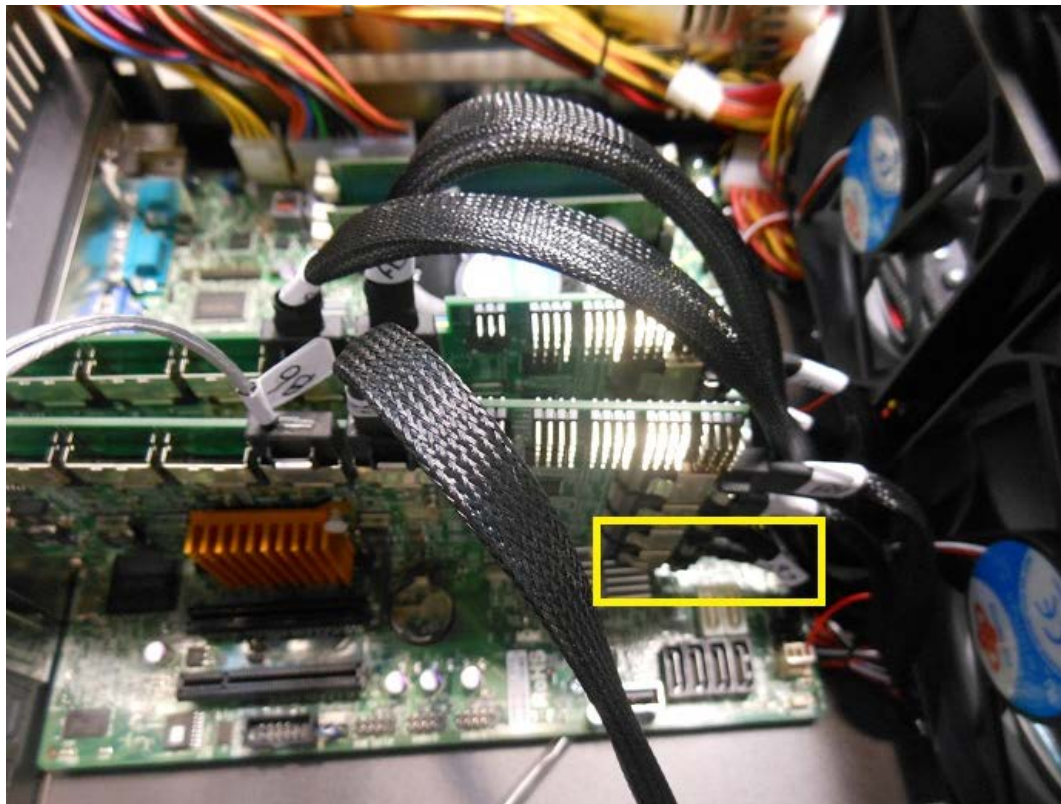




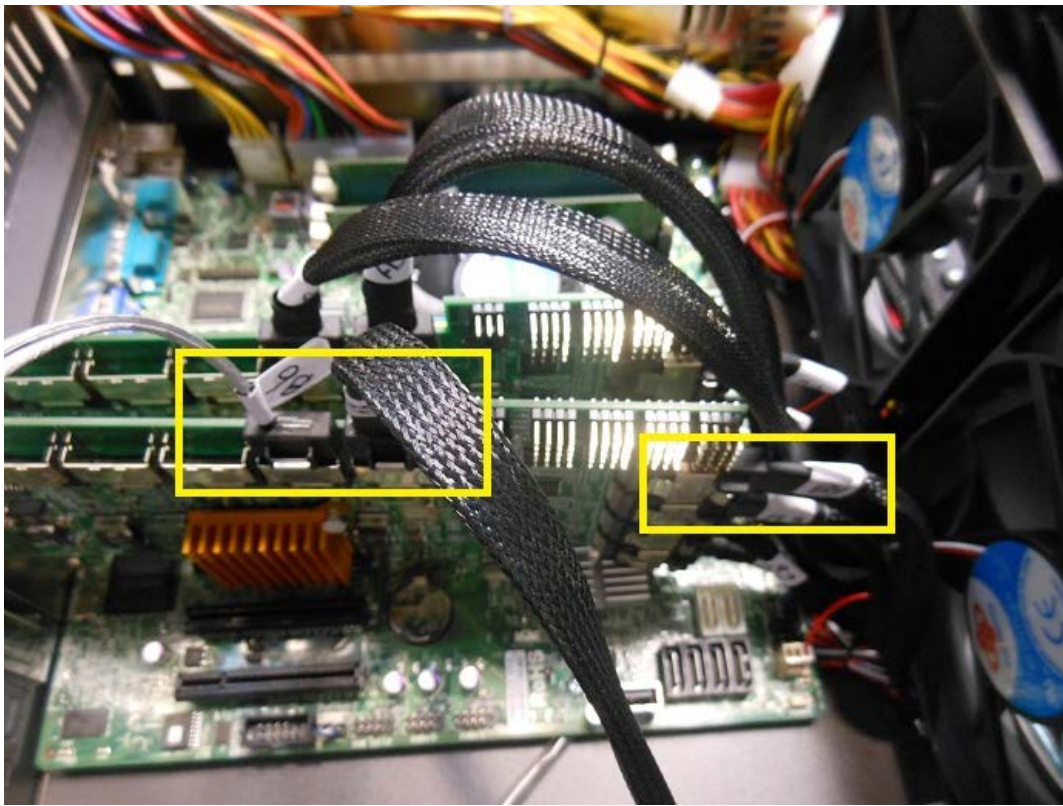
- Connect the Bracket #2 SATA Cables. Connect cables starting left-to-right.
 - Cables **A5** and **A6** are installed into the top 2 ports on SATA card #1.



- Cables **B1** and **B2** are installed in the bottom 2 ports on SATA card #2.



- Tie down all wires as before; try to tuck away wires and connectors close to or under the brackets.
- If in doubt about possible wire interference, use a test hard drive to check.
- Locate **Back Plane Bracket #3**.
 - This bracket has a single connector and 2 empty slots on the end of the bracket.
- Install the extra connectors from Bracket #2 into the empty slots in Bracket #3.
- Install Bracket #3 to the chassis in the same manner as Bracket #1 & #2.
- Label Bracket #3 SATA cables as: **B3, B4, B5** and **B6**.
- Connect these SATA cables into the next 4 slots in SATA card #2.



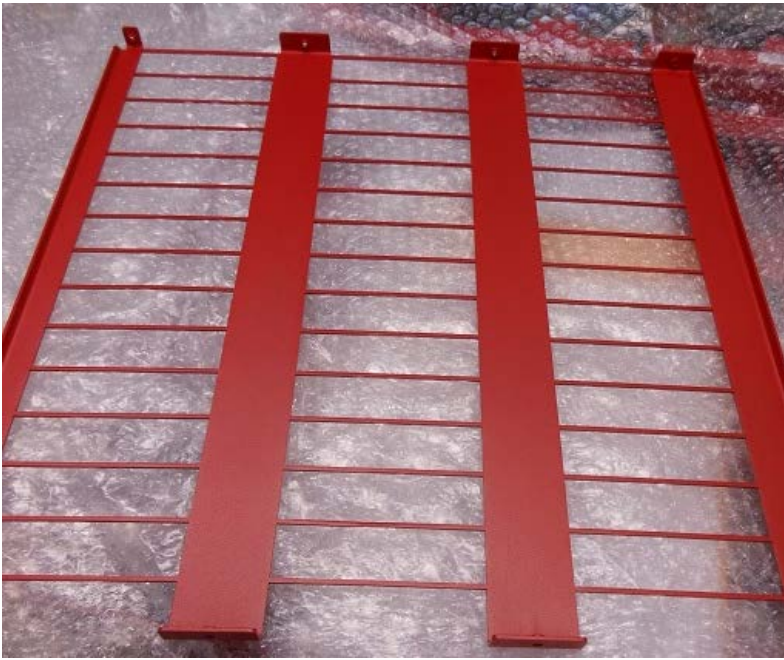
■ Completed Back Plane Bracket Assembly



14.0 Grid Installation

- Locate the proper **Grids**.





- You will require **2** grids for assembly - a **Top** and **Bottom**.
- The top and bottom grids are **Identical**.
- Place one grid over the **Back Plane Assembly**. This will be the **Bottom Grid**.
 - **Angle** the grid slightly when installing so that it slips into place without scratching the chassis.
 - Fasten with **8 x 6-32 x 1/4" 100° Flat Head Screws**.



- Install the **Top Grid**. You may notice this grid is **Tight-Fitting**. Gently move it into place.
 - Fasten with **8 x 6-32 x 1/4" 100° Flat Head Screws**.

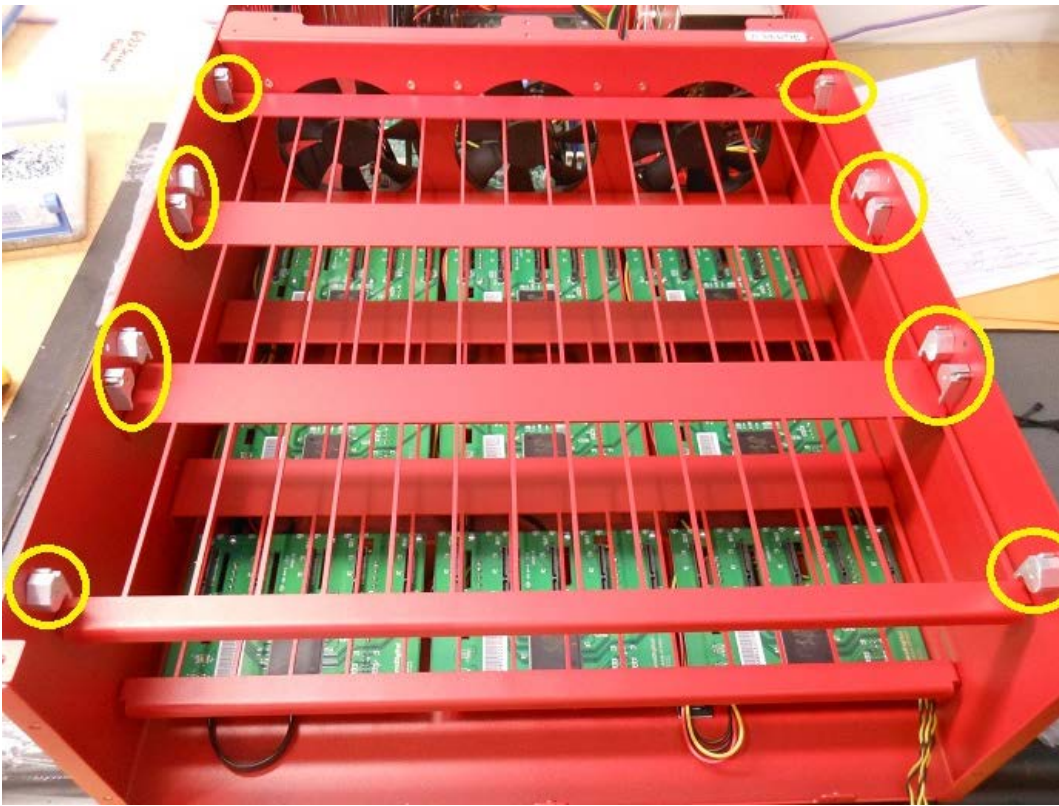


15.0 Rod Bracket Installation

- Locate the proper **Rod Brackets**.



- You will require **12 Total** - 6 rod brackets per side.
- Install the rod brackets onto the chassis using **12 x 6-32 x 1/4" 100° Flat Head Screws**.



16.0 Front Panel Installation

- Locate the proper **Front Panel**.



- Lay the front panel **Face Down**.
- Attach the yellow/black **Fan Wires**. These can be installed in any order.



- Any extra wires are to **Tie Wrapped** to the wiring harness. Cut off any excess tie.



- Slide the front panel up against the front of the chassis.
- Attach the front panel to the chassis using **7 x 6-32 x 1/4" 100° Flat Head Screws**.
 - Install one screw on the left side and then one on the right side.
 - Install all remaining screws.



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