

Retrofit Instructions For Power Supply assembly (4152B5016):

The first part of this procedure will deal with swapping out the existing Power Supply assembly PCB (4152B5016) with a modified version (Rev. I or higher). There's also a new Opto PCB (4052B5034), a new harness (4152B7061) and a modified harness (4152B7037) that get swapped in. In the second part of the procedure, the +3.3VDC, +5VDC and +12VDC output of the PS133 power supply get adjusted.

Replacement of Parts

1. Make sure Obsession Processor Unit is turned OFF and unplugged.
2. Remove the cover of the Obsession Processor Unit.
3. Remove the four screws on the bottom of the Obsession Processor Unit holding the PS133 in place and move it slightly out of way so that you can gain access to the connectors of Power Supply assembly (4152B5016)
4. Unplug the connectors J1, J2, J3, J4, J5, J8, J10, J12 and J13 on existing Power Supply assembly (4152B5016). See Page 3 for details.
5. Remove the old cable (4152B7034) on connector P1 of PS133 and the existing DC power cable assembly (4152B7037) from the screw terminals TB2 and lugs of PS133.
6. Remove the 6-32 x 1/4" mounting screws for the existing Power Supply assembly (4152B5016) and take board out.
7. Install replacement Power Supply assembly (4152B5016-Rev. I or higher) using 6-32 x 1/4" mounting screws and mount Opto board (4052B5034) using standoff. Make sure the Opto board is positioned as shown to clear hard drive within unit. **NOTE:** Depending on the version of Obsession Processor Unit being retrofitted, you will have to decide between two slightly different standoffs for mounting the Opto board. For older units, the PEMs in the console that were used to secure the board were not threaded all the way to the top. The result is that a standoff with a longer male end is needed to catch the threads. First try using the standoff HW9238 (6/32 x 1/4" x 2"-- has a 1/4" long male end) as shown on Page 3. If this one doesn't work and doesn't catch the threads, you will need to use the custom standoff that has a black colored male end on it. This male end is slightly longer (~3/8") and allows for screwing into the PEM.
8. Get the new DC power cable (4152B7037- it has ring terminals on some of it's wires) and the 4152B7061 Power Supply/Opto Control cable from the kit. Review how these get installed on P1, terminal strip TB2 and lugs of PS133 (See Page 2 for details).
9. Plug the connector end of 4152B7061 cable into P1 of PS133 then make terminations as shown to the terminal strip and lugs of PS133 from the harnesses 4152B7061 and 4152B7037.
10. Plug the other ends of the 4152B7061 Power Supply/Opto Control cable into the Opto board (4052B5034) and the 4-pin header of the Power Supply assembly (4152B5016). Make sure that the 4-pin connector and header pins line up.(See Page 3 for details).
11. Reconnect J1, J2, J3, J4, J5, J10 and J12 to Power Supply assembly (4152B5016).
12. Use a small cable tie and group together the wires from the Opto board, J10 and J12 as shown (See Page 3).

Power Supply Adjustment

(Need a small screwdriver or "pot" adjuster and a digital voltmeter for this.)

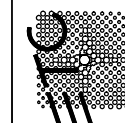
13. Remove the six screws holding the front face panel in place and take it off (See Figure 1 - Page 4).
14. Connect the negative of the voltmeter to the ground clip of the largest vertical PCB (4152B5011-RPU CPU Assembly) plugged into the motherboard. (See Figure 2 - Page 4)
15. Locate on the connector plugging into the motherboard the +3.3VDC, +5VDC and +12VDC and Ground. (See Figure 2 - Page 4)
16. Turn the Obsession unit ON and place the positive lead of the voltmeter into the +5VDC line connection (wire side) of the pluggable connector going to the motherboard (See Figure 2 - Page 4). Make sure the lead touches the metal crimp inside the connector.
17. Locate P1 on the PS133. Place your adjustment tool though the front slot of the Obsession unit and adjust P1 to obtain +5VDC. (See Figure 1 - Page 4)
NOTE: Not all Obsession Units have the adjustment slot as depicted in Figure 1 - Page 4. In that case, you'll have to position the PS133 at an angle to obtain access to voltage adjustment "pots".
18. Move the positive lead of the voltmeter to the +3.3VDC line connection on the pluggable connector (See Figure 2 - Page 4) and adjust P2 so this voltage is +3.3VDC.
19. Move the positive lead of the voltmeter to the +12VDC line connection on the pluggable connector (See Figure 2 - Page 4) and adjust P3 so this voltage is +12VDC.
20. Turn power off.
21. Remount PS133 with four mounting screws. Replace the Obsession front faceplate and top cover and secure with their appropriate screws.
22. Place all parts that were swapped out back into static bags that the new parts were sent in. Return all these parts to ETC.

UNLESS OTHERWISE SPECIFIED:

1. SCALE: 1=1 (DO NOT SCALE DRAWING).
2. ALL DIMENSIONS ARE IN INCHES.
3. REMOVE ALL BURRS AND SHARP EDGES.
4. USE MINIMUM BEND RADI.

5. ALL THREADS, INTERNAL AND EXTERNAL, TO BE KEPT FREE OF PAINT.

6. TOLERANCE:
-HOLE LOCATIONS AND SHEARED OR PUNCHED EDGES: ±.005.
-FORMING DIMENSIONS: ±.015 PER BEND, MAX CUMULATIVE ±.031.
-FORMED ANGLES: ±0.5°.
-FLATNESS TO BE WITHIN .003 PER INCH.



ELECTRONIC THEATRE CONTROLS, Inc.
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APP: G.Troz
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DIR\FILENAME: 4152A2002-D1.DWG

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OBNS2 RETROFIT INSTR FOR PS133

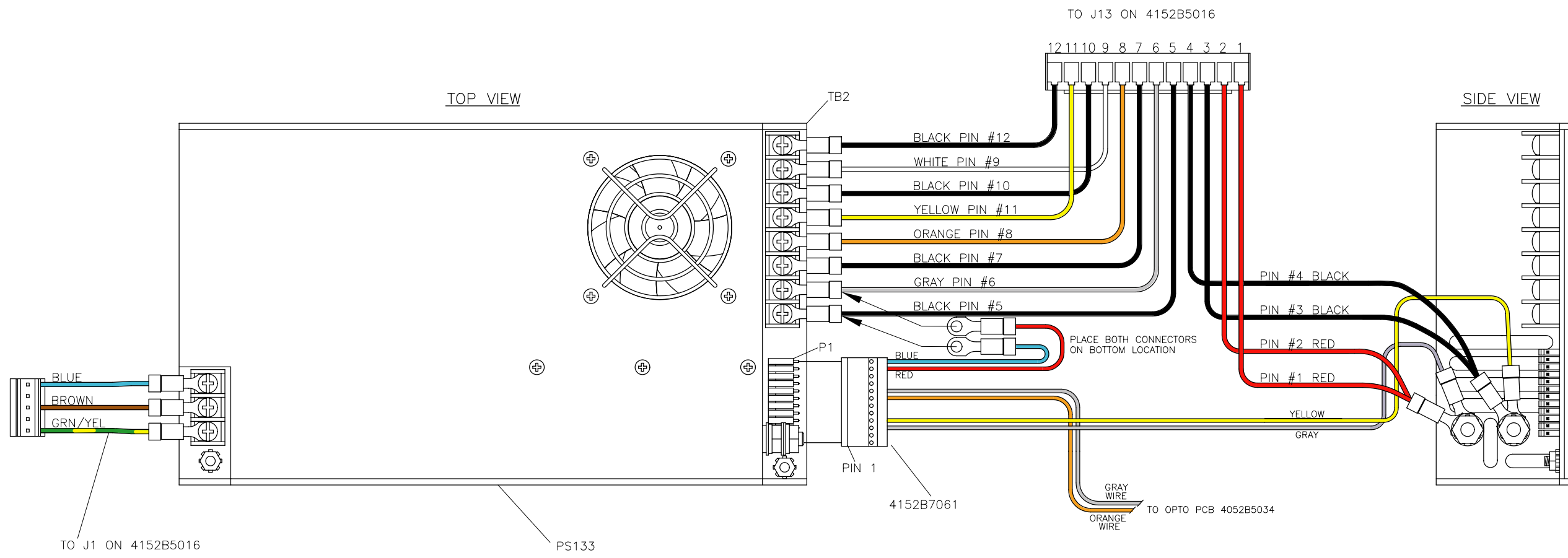
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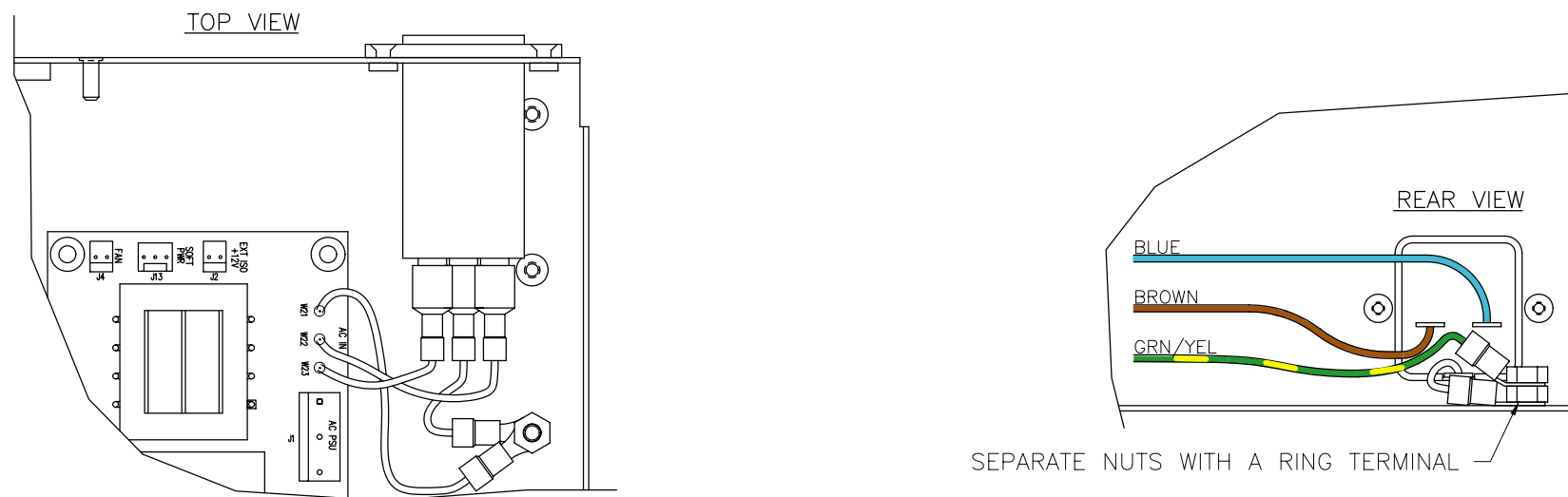
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DETAIL OF PS133 CONNECTIONS



DETAIL OF FL107 CONNECTIONS

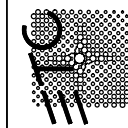
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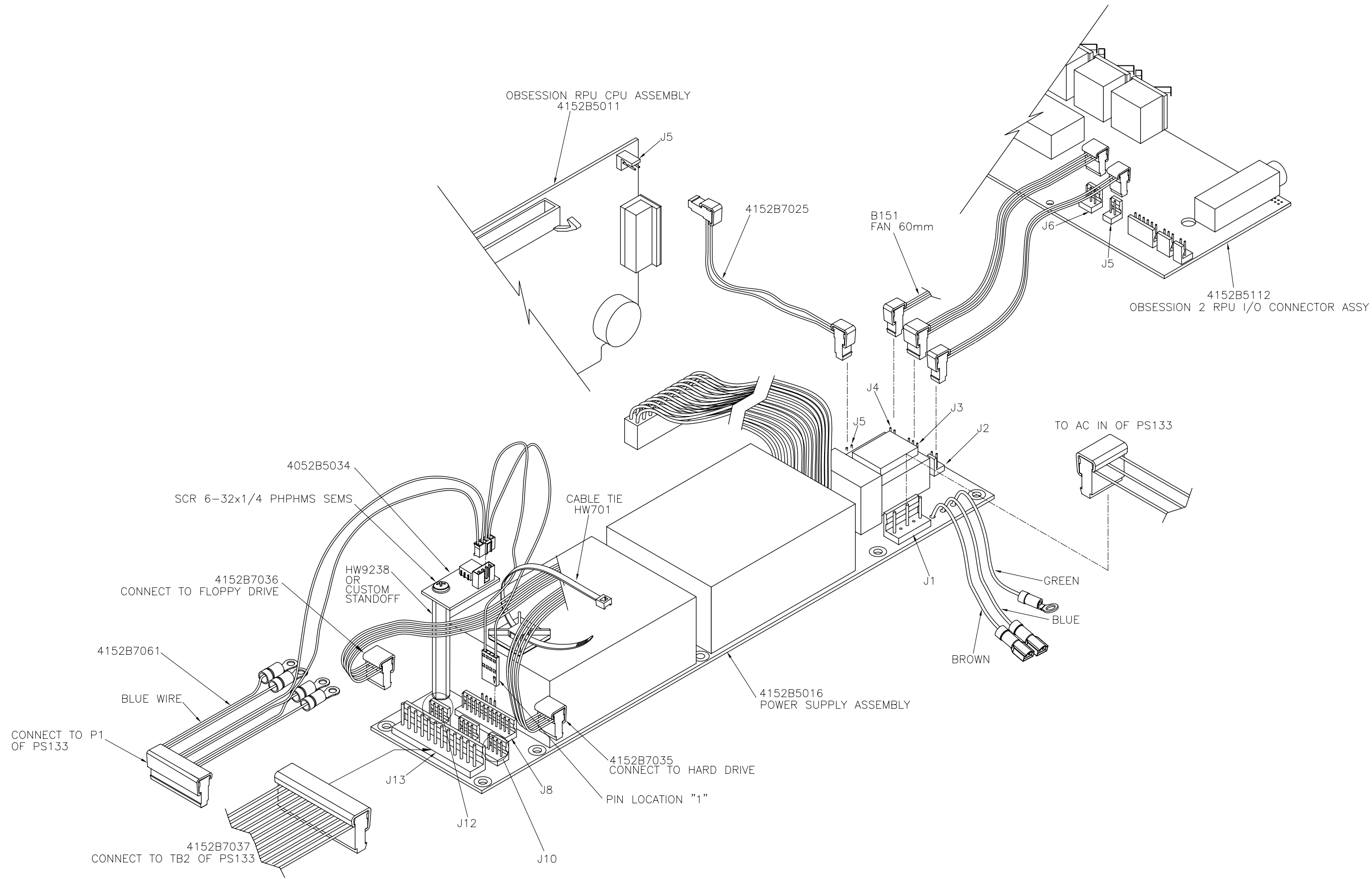
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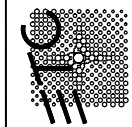
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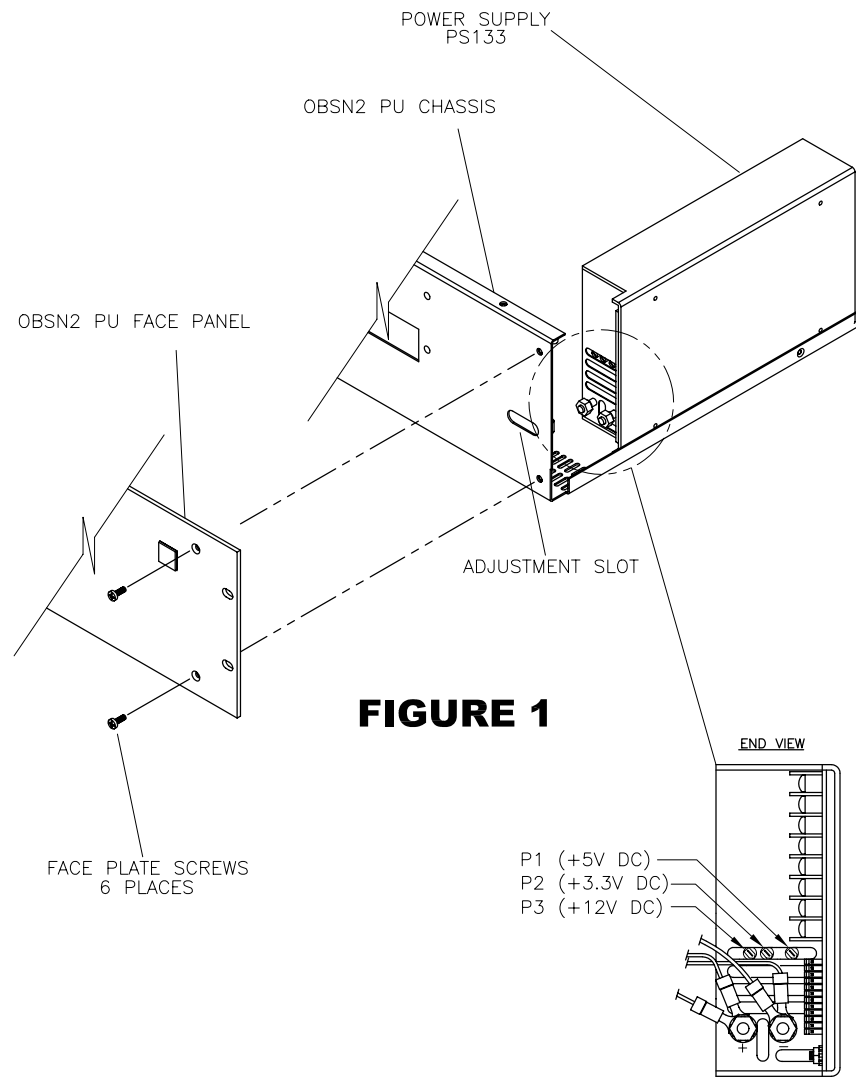


FIGURE 1

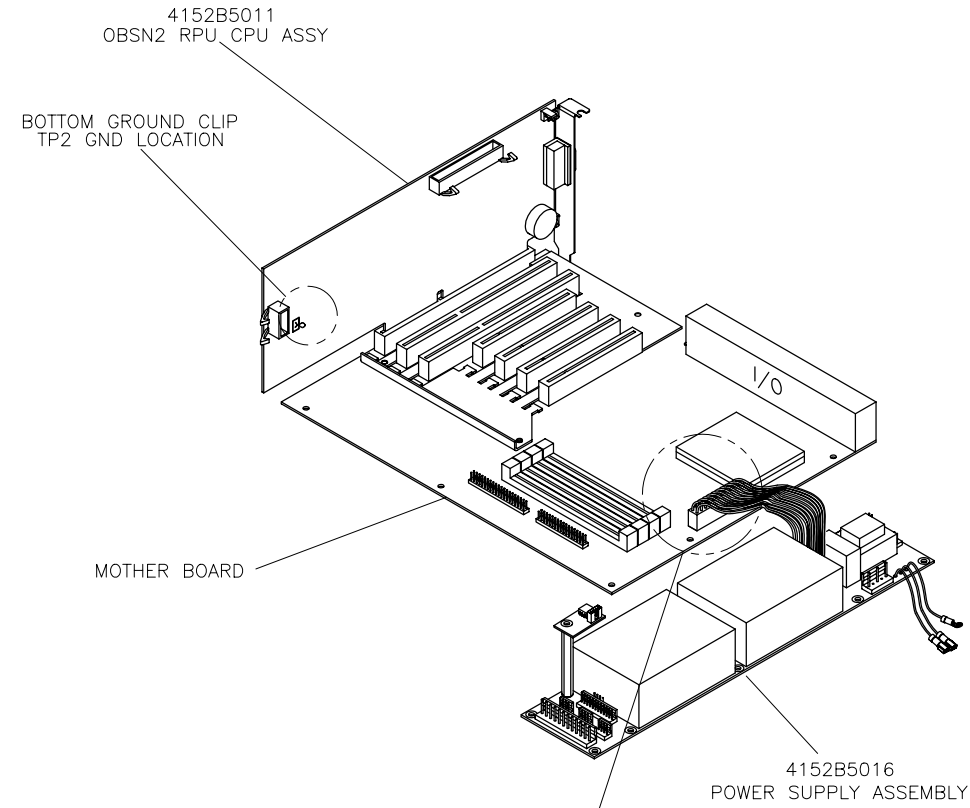
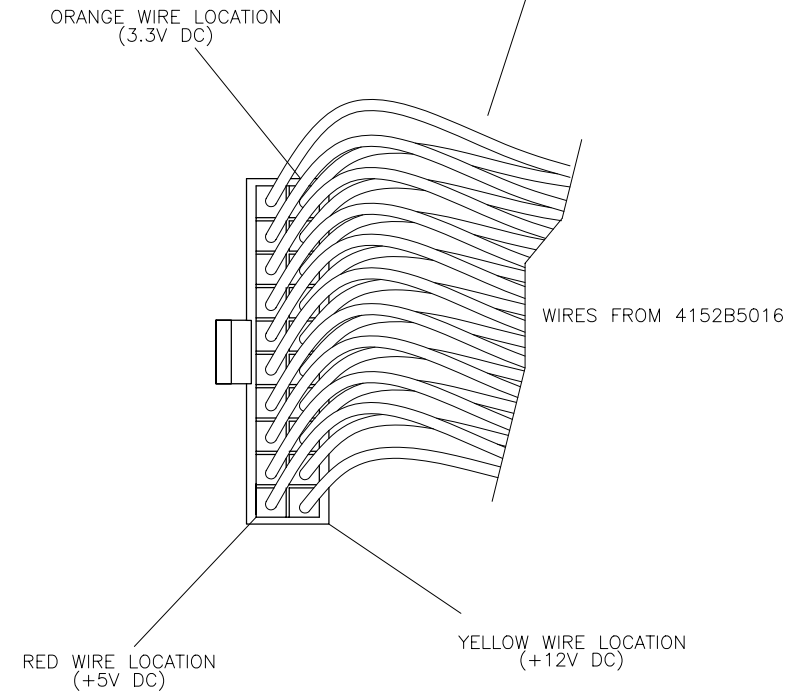
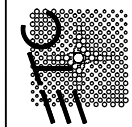


FIGURE 2



- UNLESS OTHERWISE SPECIFIED:
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 - TOLERANCE:
 - HOLE LOCATIONS AND SHEARED OR PUNCHED EDGES: ± 0.005 .
 - FORMING DIMENSIONS: ± 0.015 PER BEND, MAX CUMULATIVE ± 0.031 .
 - FORMED ANGLES: $\pm 0.5^\circ$.
 - FLATNESS TO BE WITHIN $.003$ PER INCH.



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