



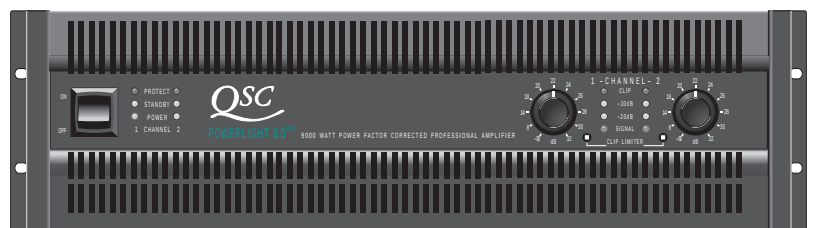
HEAR THE POWER OF TECHNOLOGY.

PowerLight™ Series

Two-Channel Power Amplifiers

TECHNICAL SERVICE MANUAL

- ▲ PowerLight 6.0 II
- ▲ PowerLight 6.0^{PFC}
- ▲ PowerLight 9.0^{PFC}



TD-000083-00
Rev. Prelim.

PowerLight Series

Technical Service Manual

▲ PowerLight 6.0 II

▲ PowerLight 6.0^{PFC}

▲ PowerLight 9.0^{PFC}

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PowerLight 9.0^{PFC}

PowerLight 6.0^{PFC}

PowerLight 9.0 II



Table of Contents

Performance Specifications	4
1. Introduction	5
1.1 Service bulletins	5
1.2 The well-equipped service bench	5
1.3 Working with surface-mount components	5
Two-terminal components (resistors, capacitors, diodes, etc.)	5
Multi-pin components (ICs, etc.)	6
Three-terminal components (transistors, etc.)	6
1.4 Series description	6
1.5 Technical descriptions and theory of operation	7
Power supplies	7
Audio circuitry	7
2. Servicing the amplifier	8
2.1 Mechanical disassembly and reassembly	8
Introduction	8
Tools and materials needed	8
Disassembly	8
Reassembly	11
2.2 The display board	13
2.3 AC line filter	13
2.4 Power supply servicing	15
Bench testing power supply modules	15
Replacing switching MOSFETs in PFC models	15
Suggestions for troubleshooting	17
Adjusting and calibrating the power supply module	18
2.5 AC voltage conversions	22
2.6 Bias adjustments	22
3. Troubleshooting	23
3.1 Initial check	23
3.2 Preliminary troubleshooting	23
3.3 Further troubleshooting	24
4. Parts	25
4.1 Semiconductor package descriptions and pinouts	25
4.2 Parts lists	33
Chassis Assembly (QSC part #WP-000268-00)	33
Chassis Assembly (QSC part # WP-000268-02)	34
Chassis Assembly (QSC part # WP-000260-00)	35
Chassis Assembly (QSC part # WP-000260-02)	36
Chassis Assembly (QSC part # WP-000170-00)	37
Chassis Assembly (QSC part # WP-000170-02)	38
Chassis Assembly, Rear (QSC part # WP-000271-00)	39
Chassis Assembly, Rear (QSC part # WP-000264-00)	39
Chassis Assembly, Rear (QSC Part # WP-000172-00)	40
Output PCB Assembly (QSC part # WP-000179-00)	40
Input PCB Assembly (QSC part # WP-000272-00)	40
Input PCB Assembly (QSC part # WP-000265-00)	41
Input PCB Assembly (QSC part # WP-000175-00)	41
Input Daughterboard Assembly (QSC part # WP-000178-00)	42
Audio Channel Module Assembly (QSC part number WP-000276-00)	42
Audio Channel Module Assembly (QSC part # WP-000182-00)	46
Power Supply Assembly (QSC part # WP-000266-00)	50
Power Supply Assembly (QSC part # WP-000266-02)	52
Power Supply Assembly (QSC part # WP-000262-00)	55
Power Supply Assembly (QSC part # WP-000262-02)	56
Power Supply Controller Assembly (QSC part # WP-000263-00)	58
Power Supply Assembly (QSC part # WP-000173-00)	60
Power Supply Assembly (QSC part # WP-000180-00)	61
Power Supply Controller Assembly (QSC part # WP-000174-00)	63
Display PCB Assembly (QSC part number WP-000176-00)	64
Line Filter Assembly (QSC part number WP-000177-00)	66
Line Filter Assembly (QSC part number WP-000181-00)	66
Matched FETs	67
5. Schematic diagrams	68

Performance Specifications

	PowerLight 6.0 II	PowerLight 6.0 ^{PFC}	PowerLight 9.0 ^{PFC}
OUTPUT POWER <i>in watts</i>			
FTC: 20 Hz–20 kHz, both channels driven			
8Ω per channel	1150 (≤ 0.1% THD)	1400 (≤ 0.1% THD)	1800 (≤ 0.2% THD)
4Ω per channel	2050 (≤ 0.1% THD)	2500 (≤ 0.1% THD)	3200 (≤ 0.2% THD)
2Ω per channel	3250 (≤ 0.1% THD)	3250 (≤ 0.1% THD)	
EIA: 1 kHz @ 1% THD, both channels driven			
8Ω per channel	1300	1600	1950
4Ω per channel	2200	2800	3400
2Ω per channel	3500	3500	4500
Bridge Mono:			
16Ω, 1 kHz, 1% THD	2600	3200	3900
8Ω, 1 kHz, 1% THD	4400	5600	6800
4Ω, 1 kHz, 1% THD	7000	7000	9000
DYNAMIC HEADROOM	0.77 dB @ 4Ω		
DISTORTION			
THD: 20 Hz–20 kHz (8, 4, & 2Ω @ 10 dB below rated power)		< 0.06%	< 0.15%
(8 & 4Ω @ FTC rated power)	< 0.1% (20 Hz–20 kHz)	< 0.02% (20 Hz–2 kHz)	< 0.03% (20 Hz–2 kHz)
20 Hz–2 kHz (2Ω)	< 0.1% (20 Hz–20 kHz @ 3250 W)	< 0.02% (@ 3250 W)	< 0.05% (@ 4500 W)
SMPTE-IM:	< 0.02%	< 0.02%	< 0.02%
FREQUENCY RESPONSE			
(at 10 dB below rated output power)	20 Hz–20 kHz, ±0.15 dB -3 dB points: 2 Hz and 50 kHz		
DAMPING FACTOR			
	> 2000 @ 8Ω, at 1 kHz and below		
NOISE (unweighted 20 Hz to 20 kHz, below rated output)			
	107 dB	107 dB	107 dB
VOLTAGE GAIN			
	40× (32 dB)		
INPUT SENSITIVITY, V RMS			
full rated power @ 8Ω	2.4 v (+9.8 dBu)	2.6 v (+10.6 dBu)	3.0 v (+11.8 dBu)
full rated power @ 4Ω	2.3 v (+9.5 dBu)	2.5 v (+10.2 dBu)	3.8 v (+11.2 dBu)
INPUT IMPEDANCE			
	10 kΩ unbalanced 20 kΩ balanced		
CONTROLS			
	Front: AC switch, Ch. 1 and Ch. 2 gain, Ch. 1 and Ch. 2 clip limiter switches Rear: Parallel/Stereo/Bridge switch, remote power supply enable terminals		
INDICATORS each channel			
	PROTECT: Red LED	CLIP: Red LED	
	STANDBY: Yellow LED	-10 dB: Yellow LED	
	POWER: Green LED	-20 dB: Yellow LED	
		SIGNAL: Green LED	
CONNECTORS			
	Input: Active balanced; “Euro-style” terminal block; Neutrik “Combo” XLR and ¼" (6.3 mm) TRS, tip and pin 2 positive Output: “Touch-Proof” binding posts (60A rated) and Neutrik Speakon™ (1 per channel) DataPort: HD 15 female connector for use with QSControl, Basis, or accessories		
COOLING			
	Four continuously variable speed fans, back-to-front air flow		
AMPLIFIER PROTECTION			
	Full short circuit, open circuit, thermal, ultrasonic, and RF protection Stable into reactive or mismatched loads		
LOAD PROTECTION			
	Turn-on/turn-off muting,		
OUTPUT CIRCUIT TYPE			
	H: Full-bridge current cell vertical N-channel MOSFET linear output with Class H 4-step high efficiency circuit		
DIMENSIONS			
	19.0" (48.3 cm) wide, 3.5" (8.9 cm) tall (2 rack spaces) 17.9" (45.5 cm) rack mounting to rear support ears; 19.5" (49.5 cm) overall		
WEIGHT Shipping:			
	59 lb. (26.8 kg)	65 lb. (29.5 kg)	65 lb. (29.5 kg)
Net:			
	53 lb. (24.1 kg)	59 lb. (26.8 kg)	59 lb. (26.8 kg)
POWER REQUIREMENTS			
POWER CONSUMPTION @ 120 VAC (both channels driven)			
	Available for 120 or 220–240 VAC, 50/60 Hz		

Multiply currents by 0.5 for 230V units

	Idle	Typical ¹	Full ²	Max ³
8Ω	2.5 A	10.3 A	19.3 A	39.3 A
4Ω	2.5 A	15.5 A	35.1 A	67.5 A
2Ω	2.5 A	23.8 A	47.4 A	104.7 A

	Idle	Typical ¹	Full ²	Max ³
8Ω	2.5 A	10.3 A	19.3 A	39.3 A
4Ω	2.5 A	15.5 A	35.1 A	67.5 A
2Ω	2.5 A	23.8 A	47.4 A	104.7 A

	Idle	Typical ¹	Full ²	Max ³
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4Ω	2.5 A	15.5 A	35.1 A	67.5 A
2Ω	2.5 A	23.8 A	47.4 A	104.7 A

¹ Pink noise at 1/8 of full power; analogous to typical program with occasional clipping.

² Pink noise at 1/3 of full power; analogous to typical program with heavy clipping.

³ Continuous sine wave at threshold of clipping (1% THD).

US patents pending

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

1. Introduction

1.1 Service bulletins

Contact QSC Technical Services to make sure you have the most up-to-date service bulletins for PowerLight Series amplifiers. Service bulletins may be distributed in hard copy, via fax, and electronically (Adobe Acrobat PDF) via CD-ROMs, FTP from the QSC web site (www.qscaudio.com), and e-mail.

These service bulletins had been issued at the time this manual was printed: **PFC0001**, “PFC MOSFET Replacement” (PowerLight 6.0^{PFC} and PowerLight 9.0^{PFC} only); **PFC0002**, “PFC Power Supply Replacement Guidelines” (PowerLight 6.0^{PFC} and PowerLight 9.0^{PFC} only); and **PFC0003**, “Amplifier Goes Into Protect When Turned On” (all three models).

1.2 The well-equipped service bench

To properly service QSC amplifiers, a technician needs the right tools. The technician's service bench should have the following equipment:

- Digital multimeter with RMS AC voltage and current
- Digital clamp-on ammeter
- Dual-trace oscilloscope
- Audio distortion analyzer
- Non-inductive load resistors, configurable as 8 ohms (min. 1800 watts capacity), as 4 ohms (min. 3200 watts capacity), and as 2 ohms (min. 4500 watts capacity)
- Variable AC voltage source, such as a Variac or Powerstat variable transformer, with a rated current capacity of up to 50A (for 120V models) or 25A (for 230V models)
- Low-distortion audio sine wave generator
- Philips and flat screwdrivers
- Soldering iron with a fine tip (25–60W recommended)
- Rosin-core solder (60/40 or 63/37)
- Long-nose pliers
- Diagonal cutters
- Wire strippers

Automated test equipment, such as an Audio Precision workstation, is very useful for servicing PowerLight amplifiers. Contact QSC Technical Services to obtain applicable AP test files.

Servicing power supply modules will require some additional special-built equipment:

- Power supply remote controller
- PFC power supply fixture (for PFC modules only)
- CMP box

Because of the complexity of the PFC power supplies, QSC recommends they be serviced only by QSC.

1.3 Working with surface-mount components

PowerLight amplifiers, like many modern electronic products, use surface-mount technology (SMT) components where appropriate in order to make high-density circuitry that is reliable and economical to manufacture.

SMT components in the PowerLight amps are used in the small-signal and control circuits, so they do not handle significant amounts of power; therefore, they are subject to very little stress and should seldom fail. Sometimes they do fail, or they require replacement for a performance upgrade or modification. Thus, it is important to know how to work with SMT components.

Specialized tools and equipment exist for soldering, unsoldering, and removing SMT components quickly and efficiently, but they are often expensive. Most SMT repairs, though, can be handled reasonably well with common tools and equipment, such as tweezers, solder braid, and fine-tip soldering irons.

Two-terminal components (resistors, capacitors, diodes, etc.)

Removal

1. Use two soldering irons, preferably about 25 to 40 watts, with fine tips.
2. With a soldering iron in each hand, hold one tip on the solder at one end of the component and the other tip on the other end (Figure 1.1).
3. Once the solder melts on both ends, grip the component between the two tips and lift it from the circuit board.
4. Use solder braid and a soldering iron to remove the solder from the two pads (Figure 1.2).



Figure 1.1.

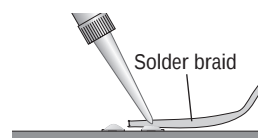


Figure 1.2.

Insertion

1. With a soldering iron and 60/40 or 63/37 eutectic-type solder, melt just enough solder onto one pad to create a small mound (Figure 1.3).
2. Grasp the component in the middle with tweezers. Melt the small mound of solder with the iron and place the component across the two pads (in the correct orientation, if the component is sensitive to direction) and press it flat against the circuit board, with one end of the component immersed in the melted solder (Figure 1.4).
3. Hold the component in place and take the soldering iron away.

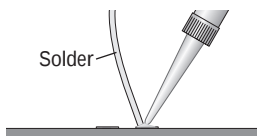


Figure 1.3.

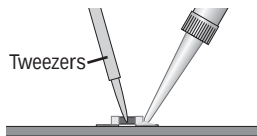


Figure 1.4.

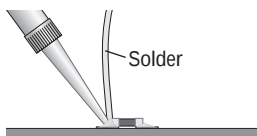


Figure 1.5.

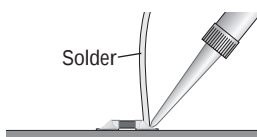


Figure 1.6.

Let the solder harden to tack the component in place.

4. Fully solder the other end of the component to its pad. Let the solder harden (Figure 1.5).
5. Fully solder the tacked end of the component to its pad (Figure 1.6).

Three-terminal components (transistors, etc.)

Removal

1. With a soldering iron and solder braid, remove as much solder as possible from the middle terminal of the component.
2. With a soldering iron in each hand, hold one tip on the solder at the terminal at one end of the component and the other tip on the terminal at the other end.
3. When the solder on both ends

melts, grip the component between the two tips and lift it from the circuit board. You might need to quickly touch the pad on the middle terminal with a soldering iron to melt any remaining solder that might be holding the component down.

4. Use solder braid and a soldering iron to remove the solder from the three pads.

Insertion

1. With a soldering iron and 60/40 or 63/37 eutectic-type solder, melt just enough solder onto one pad to create a small mound of solder.
2. Grasp the component with tweezers. Melt the small mound of solder with the iron and place the component in the correct orientation across the three pads and press it flat against the circuit board, with one terminal of the component pressed into the melted solder.
3. Hold the component in place and take the soldering iron away. Let the solder harden to tack the component in place.
4. Fully solder the other terminals of the component to their pads. Let the solder harden.
5. Fully solder the tacked terminal of the component to its pad.

Multi-pin components (ICs, etc.)

Removal

Removing a multi-pin SMT component is a delicate procedure. Ideally, you should use a soldering iron with an attachment that allows you to heat all the pins simultaneously.

If such a soldering device is not available, use this procedure:

1. Use a soldering iron and solder braid to remove as much solder as possible from the pins of the component.

2. With fine tweezers, carefully try to lift each pin to see if it's free. If it's not, touch it with the tip of the soldering iron and if necessary, use the solder braid to remove the remaining solder.
3. Repeat the process until all the pins are free and you can remove the component.

Insertion

1. With a soldering iron and 60/40 or 63/37 eutectic-type solder, melt just enough solder onto one pad to create a small mound of solder. It is usually easiest to use a pad that corresponds to one of the end or corner pins of the component.
2. Grasp the component with tweezers. Melt the small mound of solder with the iron and place the component in the correct orientation upon its pads and gently press it flat against the circuit board, with the appropriate terminal of the component pressed into the melted solder.
3. Hold the component in place and take the soldering iron away. Let the solder harden to tack the component in place.
4. Fully solder the other terminals of the component to their pads. Let the solder harden.
5. Fully solder the tacked terminal of the component to its pad.

1.4 Series description

QSC's PowerLight Series amplifiers are high-performance professional audio products, designed primarily for live and touring sound and large-scale installations.

This service manual covers the three most powerful models developed for the PowerLight Series: the PowerLight 6.0 II, the PowerLight 6.0^{PFC}, and the PowerLight 9.0^{PFC}. Each one has two audio channels and is three rack spaces tall. See page 2 for complete specifications.

The PowerLight 6.0^{PFC} and PowerLight 9.0^{PFC} feature power supplies with power factor correction, which reduces peak current demand by drawing power throughout the AC voltage waveform. The PowerLight 6.0 II has power supplies that don't have PFC but are simpler and less expensive to manufacture.

The first four digits of the amplifier's serial number indicate the month and year of manufacture in MMY format. For example, **0701xxxx** = July 2001). A serial number that starts with "13" indicates the amplifier was made during the model's beta production. The PowerLight 9.0^{PFC} entered production in May 1998. The PowerLight 6.0^{PFC} followed in March 1999, and the PowerLight 6.0 II, in August 2002. Many PowerLight 6.0^{PFC} amplifiers, however, have been converted by QSC Technical Services into PowerLight 6.0 II amplifiers, so you may encounter PowerLight 6.0 II amplifiers with serial number date codes that precede the model's actual release date.

The PowerLight 6.0^{PFC} and PowerLight 9.0^{PFC} ceased production in March 2004.

1.5 Technical descriptions and theory of operation

Power supplies

QSC PowerLight amplifiers feature high-frequency switch-mode power supplies that help reduce noise, increase electrical efficiency, and lower weight. Two models, the PowerLight 9.0^{PFC} and the PowerLight 6.0^{PFC}, had power factor correction to reduce the peak current demand from the AC mains. They accomplished this by drawing current throughout the AC voltage waveform, instead of just at the peaks, as most amplifiers and other electronic equipment do. The PowerLight 6.0 II was developed later, and its power supplies do not have power factor correction.

All three models have a four-tier class H system of multiple rail voltages to boost efficiency.

A power amplifier is most efficient at or near full power, yet the dynamic nature of music and other typical audio requires much less than full power most of the time. Thus, this class H scheme creates essentially four different “full-power” levels within the amplifier

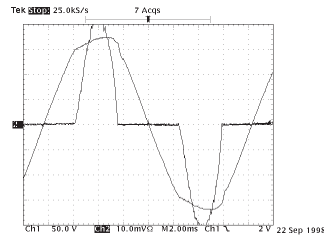


Figure 1.7. Amplifiers without PFC draw current only at the peaks of the AC voltage waveform.

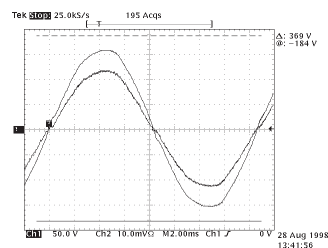


Figure 1.8. An amplifier with PFC draws current throughout the AC voltage waveform.

Audio circuitry

The audio inputs are balanced to offer a high amount of common-mode noise rejection. The input balancing is done using an instrumentation amplifier arrangement, which uses a single op amp, arranged as a voltage follower or buffer, on each leg of the balanced input, driving a single op amp differential amplifier. The degree of common-mode rejection is dependent on the close matching of the impedance between each leg and ground and around the differential amplifier. The circuitry uses 1% precision resistors to ensure at least 40 dB of common-mode rejection.

The differential amplifier circuitry includes a first-order high-frequency roll-off, down 3 dB at 280 kHz (nearly four octaves above the high end of the audio spectrum). This makes the amplifier less

susceptible to RF interference, high-frequency oscillations, etc.

The audio signal passes through a pre-clipper, which prevents the audio signal from driving the output section itself into actual clipping. This maintains damping on the channel output even during clipping so that it continues to tightly control the loudspeaker motion, which is something most amplifiers cannot do. A defeatable clip limiter on each channel reduces signal level when clipping occurs; it does not prevent clipping, but reduces the amount of distortion to inaudible or barely audible levels.

An all-pass filter uses group delay to slow the audio signal by 4 μ s, but the class H steps are controlled by the undelayed signal. This reduces IM distortion by ensuring that the steps are executed before the audio signal in the output section reaches the transition thresholds.

The audio signal voltage is converted into current by transistors Q87 and Q89, to be precisely bifurcated into positive and negative halves by the current steering circuitry. These current signals are the controls for the output devices.

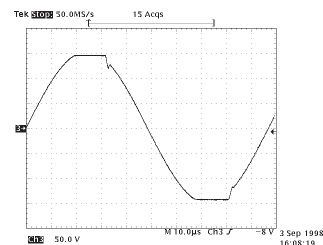


Figure 1.10. Most amps lose feedback during clipping, resulting in loss of damping and in “clip sticking.”

local management circuit called a current cell that controls and linearizes the device by providing the necessary compensation to make the MOSFET's conductivity track the signal current.

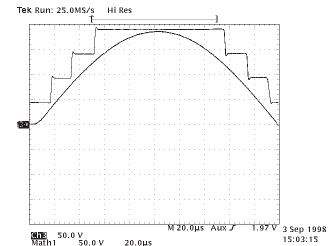


Figure 1.9. The rail voltages of the output section switch among four tiers to reproduce the signal faithfully while maximizing efficiency.

The output devices are vertical MOSFETs, which are commonly used for very high power switching because of their power handling capability and general nonlinearity. Using them for linear audio amplification requires an unorthodox approach. In these three PowerLight amplifier models, each channel has eight MOSFET devices arranged in a full bridge configuration. Each one has a

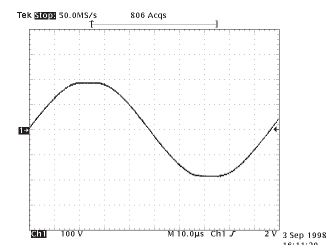


Figure 1.11. The pre-clipping scheme in the PowerLight 6.0^{PFC}, 9.0^{PFC}, and 6.0 II keeps the output signal clean despite the flat-topping of the waveform.

2. Servicing the amplifier

2.1 Mechanical disassembly and reassembly

Introduction

Replacing components will usually require removing the affected modules from the amplifier chassis. The two channels each have their own power supply module and audio module, and they share the line filter assembly and the input, output, and display board assemblies.

Within the chassis, the power supply modules are on the bottom, and the audio modules are on top. Getting at a power supply module requires removal of its audio module first.

The following instructions describe the procedure for removing both audio and both power supply modules. However, if you only need to work on one channel, you do not need to remove the modules from the other.

Tools and materials needed

- Philips screwdriver
- Diagonal cutters
- Tie wraps
- Needle-nose pliers
- Adhesive rubber foot (one per channel), QSC part # QQ-QQQQQQ-QQ or equivalent
- 5/64" hex (Allen) key
- 11/32" nutdriver or socket wrench
- Isopropyl alcohol and a small brush

Disassembly

Removing the top cover

1. Disconnect the amplifier from AC power and allow at least 10 minutes for internal voltages to bleed down.
2. A total of 18 screws—six with pan heads and twelve with flat heads—hold the top cover to the chassis. Using a Philips screwdriver, remove them and set them aside. See Figure 2.1.
3. Lift the top cover up at the front until it clears the side rack ear pieces, then lift it off the chassis. If the front of the cover is bent or dented, make sure the front edge clears the two display board headers.

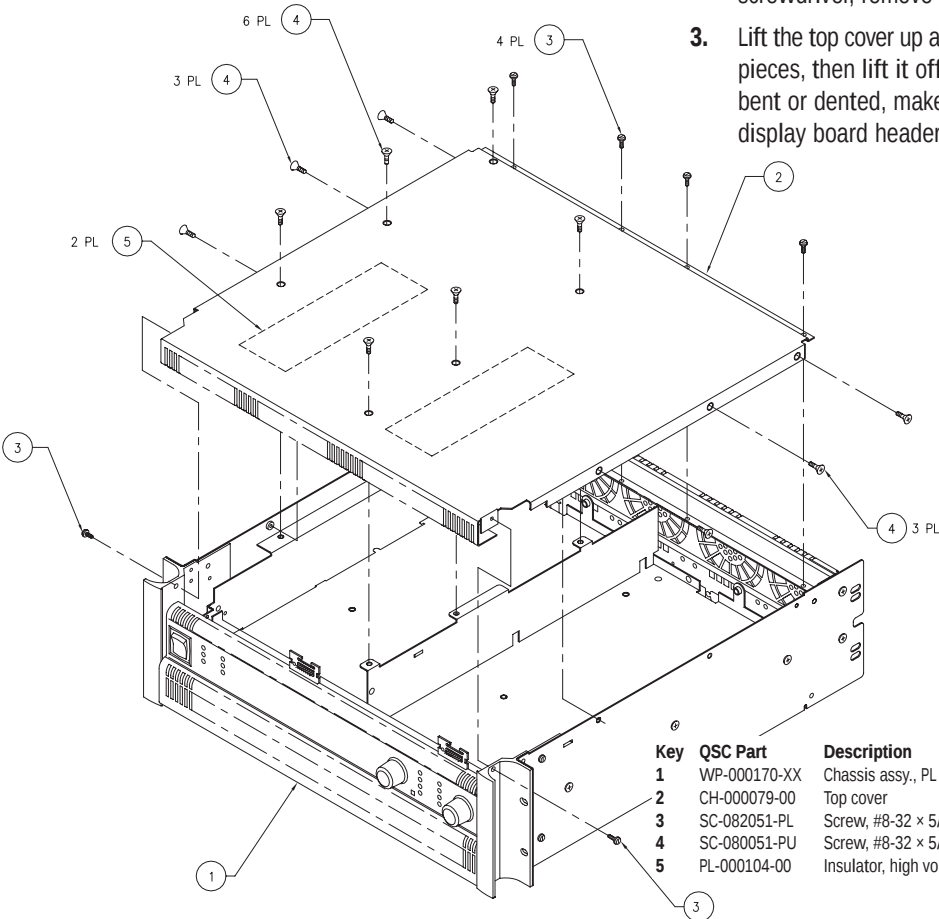


Figure 2.1. Removing or installing the top cover.

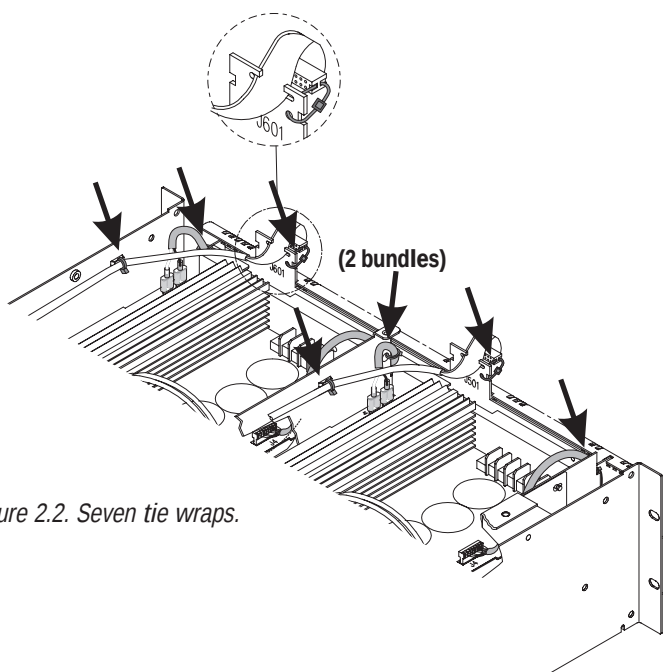


Figure 2.2. Seven tie wraps.

Preparing the audio modules for removal

4. There are two fishpaper insulators on each audio module. Remove them by lifting them straight up off the heat sinks. Do not slide them forward or backward.
5. Cut the tie wraps in the seven locations shown in Figure 2.2.
6. Disconnect the display board header in front of each module.
7. Using needle-nose pliers, grasp one of the housekeeping supply connectors and disconnect it from the modules (see Figure X.X). Repeat for the other(s).
8. Disconnect the fan connections (two on each module).
9. Spread open the latches on the power supply control interface connections and disconnect the headers from the modules.
10. Remove the two screws that secure the audio module to the chassis partition. One screw is at the corner near the power supply connections, and the other is about 6 cm (2.5 inches) behind the housekeeping supply connections.
11. Locate the power supply connections, the five screw terminals at the front of each module. Loosen them and remove the wires.

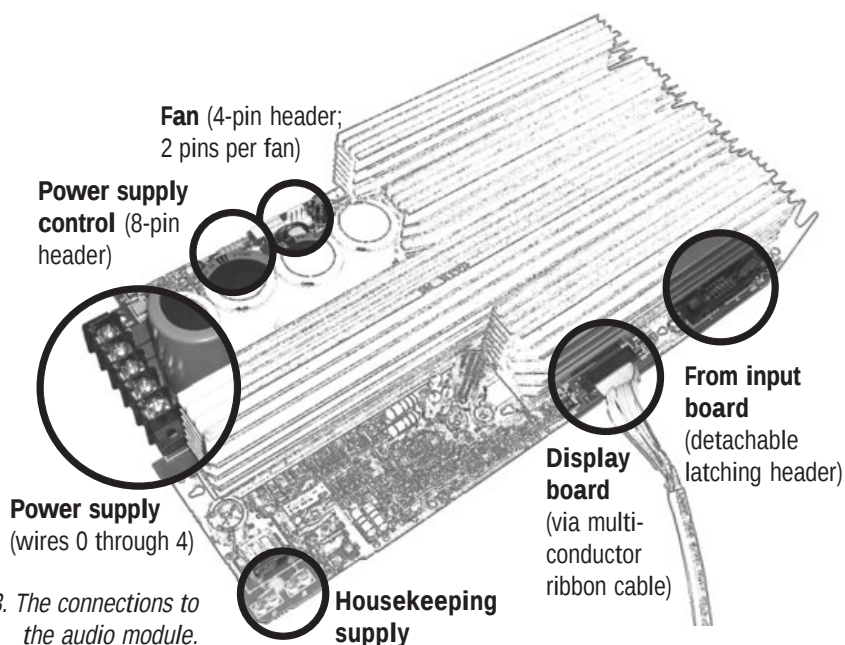


Figure 2.3. The connections to the audio module.

12. There may be an adhesive rubber foot wedged in front of each module circuit board. Grasp it with the needle-nose pliers and pull it out.

Removing the chassis rear panel

13. Remove the four screws on the rear panel (see Figure 2.4).
14. Tip the amplifier up on its right side (the side opposite the power cord). There are three flat head screws in a line along the center of the side panel. Remove them.
15. Remove the two pan head screws on the rear rack tab.
16. Set the amp back down and remove the two pan head screws from the other rear rack tab.
17. Remove the two screws under the power cord.
18. Tip the chassis rear panel back and disconnect the header from the input board.
19. Lift the fan wires clear of the heat sinks on the audio modules.

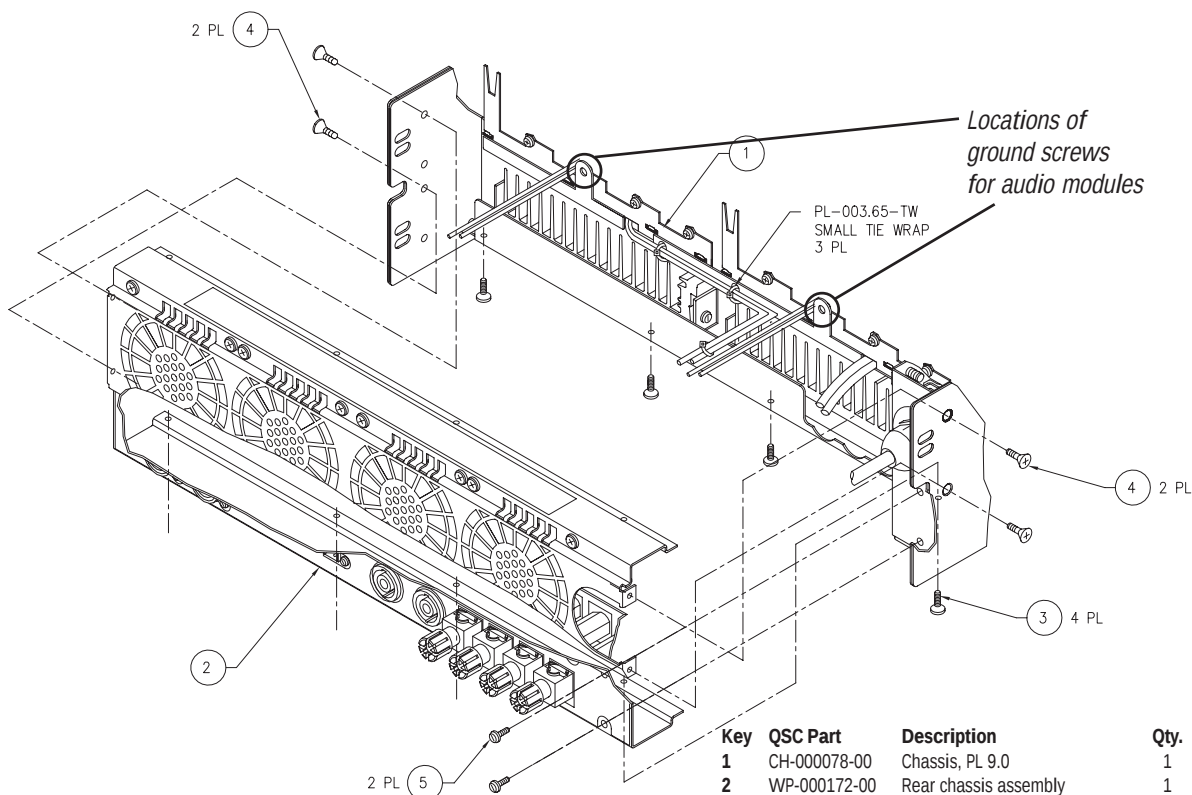


Figure 2.4. Removing or installing the chassis rear panel.

Key	QSC Part	Description	Qty.
1	CH-000078-00	Chassis, PL 9.0	1
2	WP-000172-00	Rear chassis assembly	1
3	SC-082051-PL	Screw, #8 × 5/16", pan head	4
4	SC-080051-PU	Screw, #8-32 × 5/16", flat head	4
5	SC-082051-PL	Screw, #8 × 5/16", pan head	2

20. Remove the chassis rear panel from the main chassis.
21. Cut and remove the tie wraps that secure the output wires to the rear panel.

Removing the audio modules

22. There is a ground screw at the back of each audio module (see Figure 2.4). Remove it.
23. Slide the audio module toward the front of the chassis so that its keyed mounting holes are clear of the standoffs.
24. Lift up the back of the audio module slightly, then lift the entire module clear of the chassis.

Removing the power supply modules

25. If you need to remove one or both power supply modules, you will need to remove both audio modules. Invert one audio module and set it on top of the other channel's audio module, then set them aside.
26. Straighten the five power supply wires on each channel.
27. Remove the three screws from the front of the chassis partition.
28. Remove the side-facing screw from the front of the partition on channel 1's side.

29. Remove two black pan head screws from the center line of the chassis partition.
30. Slide the chassis partition back, then lift up on the channel 2 side of it. Press down on the back of the partition, then lift it clear of the chassis.
31. Remove the two screws at the front of the power supply module.
32. Use a 5/64" hex (Allen) key to remove the screw at the rear of the power supply module.
33. Use an 11/32" nutdriver or socket wrench to remove the two nuts on the AC connection (a white and a black wire).
34. Slide the power supply module toward the rear of the chassis, then lift it up and out of the amplifier.

Inspecting the power supply modules

35. Visually inspect the power supply module. Check the leads of diodes D1 and D12, because they sometimes crack due to flexing of the circuit board.
36. Using isopropyl alcohol and a brush, clean any dirty or charred parts of the circuit board. Look for burned-off circuit board traces, especially around the switching MOSFETs; missing or damaged ones can be repaired using a trace repair kit. If the

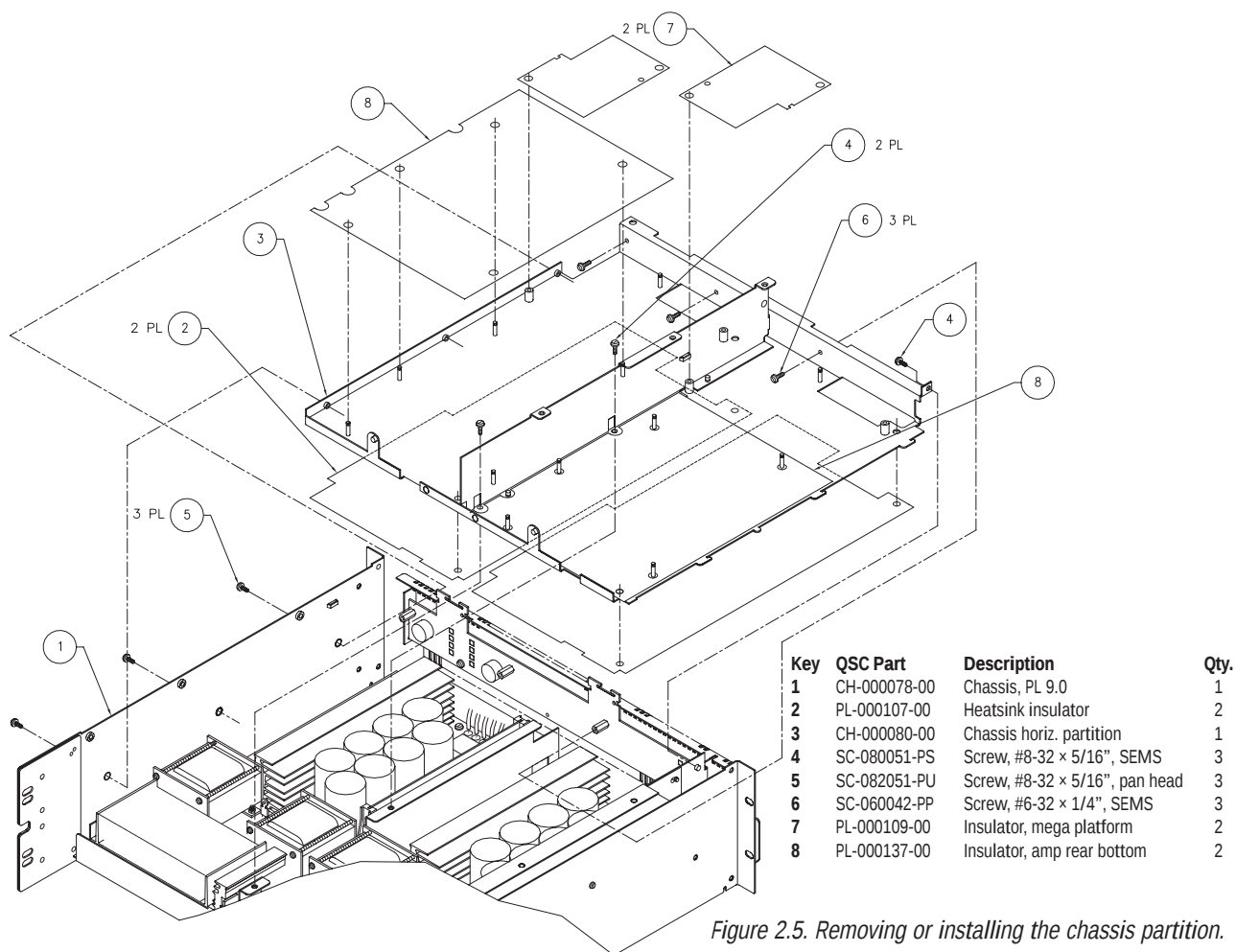


Figure 2.5. Removing or installing the chassis partition.

circuit board is burned into the fiber layers or badly damaged, replace the entire module.

See instructions for servicing the power supply module elsewhere in this chapter.

Reassembly

Reassembling the amplifier chassis is essentially reversing the order of the disassembly process.

Installing the power supply module

1. Align the keyed slots in the power supply module circuit board with the chassis standoffs. Watch out for the fish paper insulators, which may get caught underneath. Drop the module into place on the standoffs and slide it forward.
2. Using the 11/32" nutdriver or socket wrench, attach the AC wires to the module. The black wire attaches in front (closer to the front of the amplifier chassis) of the white one.
3. Using the 5/64" hex (Allen) key, insert and tighten the screw at the rear of the power supply module.

4. Insert and tighten the two screws at the front of the module.
5. Install the chassis partition.
6. Insert and tighten the two screws along the center line of the chassis partition.
7. Insert and tighten the side-facing screw at the front of the chassis partition on the channel 1 side.
8. Insert and tighten the three screws at the front of the chassis partition.

Installing the audio modules

9. Place the audio modules in position.
10. Insert and tighten the ground screw at the back of each module (see Figure 2.4).
11. With new tie wraps, secure the output wires to the chassis rear panel.
12. Loosely insert one screw on each end of the chassis rear panel, then tighten them both.
13. Insert and tighten the other two screws.

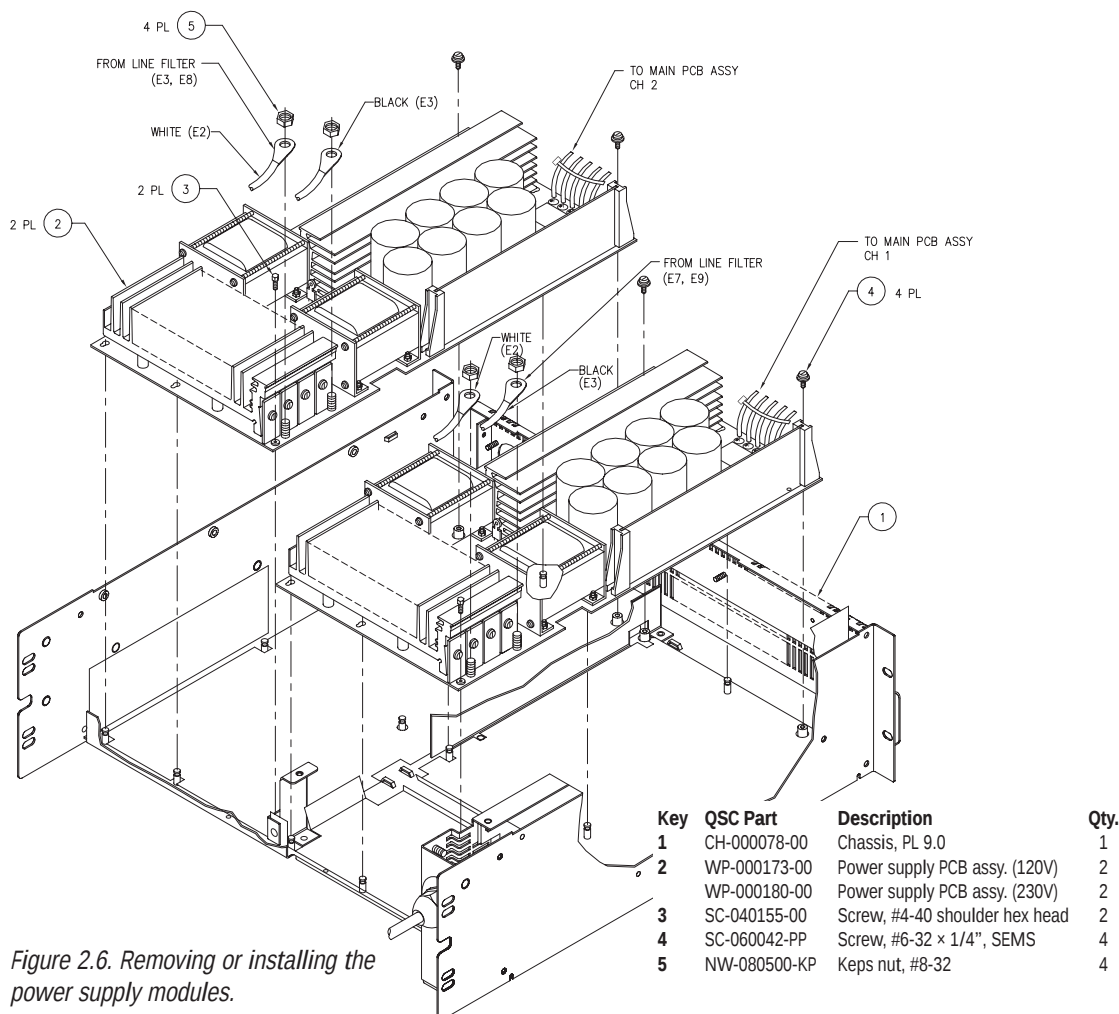


Figure 2.6. Removing or installing the power supply modules.

14. Insert and tighten the two screws under the power cord.
15. On each audio module, tuck the two fan wires into one or two slots of the heat sink. Reconnect both to the four-pin header on the audio module.
16. Reconnect the input headers to the audio module.
17. Tip the amplifier up on its right side (the side opposite the power cord). Insert and tighten the three flat head screws in a line along the center of the side panel.
18. Set the amp back down. Reconnect the five power supply wires, 0 through 4, to their respective screw terminals at the front of the module. Make sure they are placed in the proper sequence—from left to right, as viewed from the front of the amplifier: 0, 1, 2, 3, and 4.
19. Reconnect the power supply control interface. Make sure the latching wings of the board-mounted connector are up all the way.
20. Reconnect the housekeeping supply wires at the front of the module.
21. Using five new tie wraps, secure the wire bundles to the chassis partition at or near the front of the amplifier. Each secures one bundle, except for the one at the center, which secures two.
22. Using two new tie wraps, re-connect and secure the two headers to the display board.
23. Re-install the top cover of the amplifier.

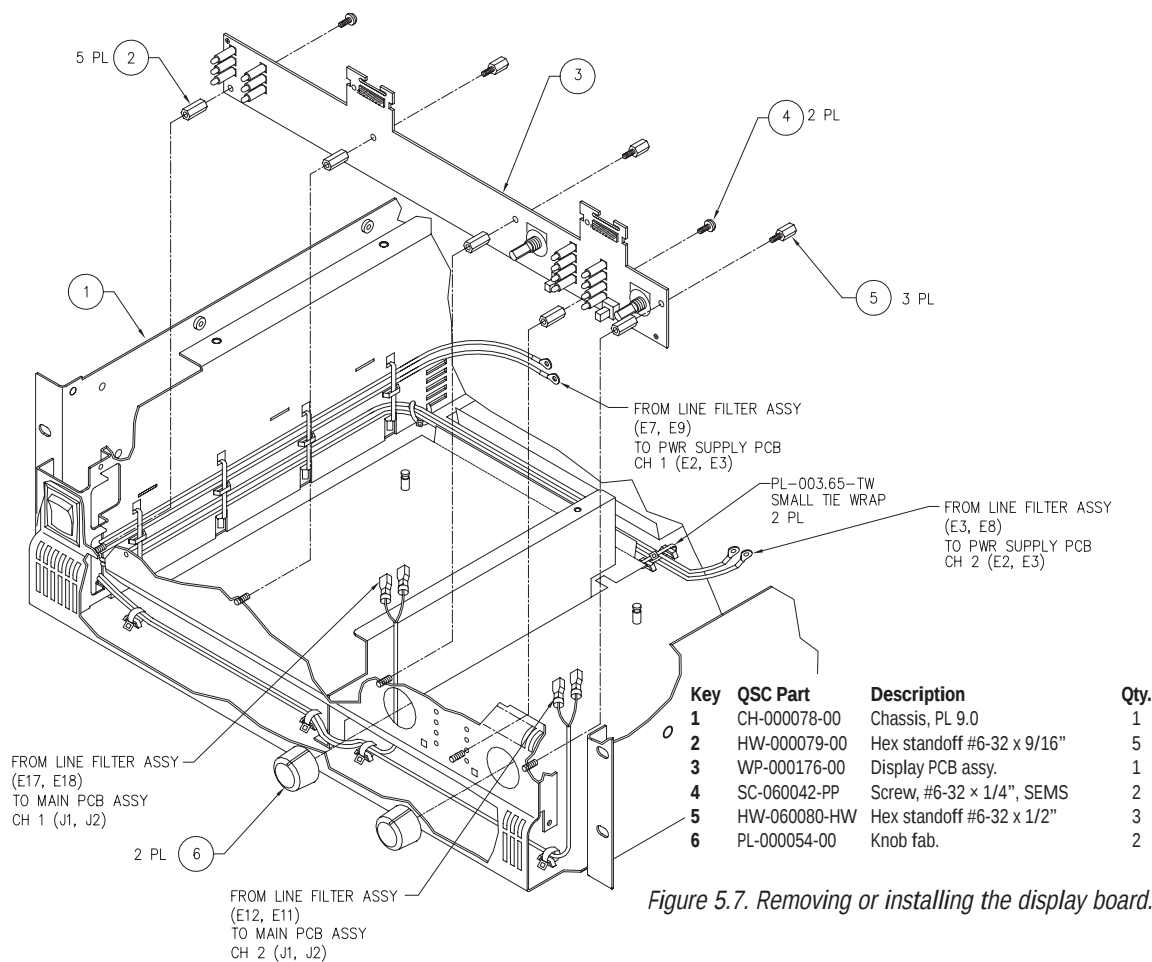


Figure 5.7. Removing or installing the display board.

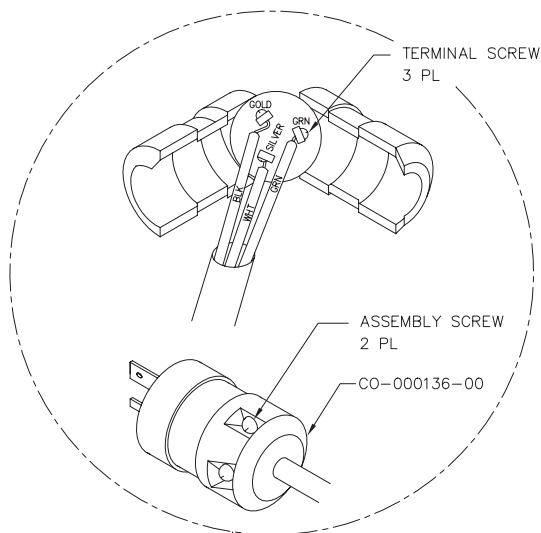
2.2 The display board

The display board contains the signal metering, clip, power, and status LEDs. It also holds the two gain potentiometers. LED failures are very rare, but you will need to remove the board if the gain pots become damaged or badly contaminated. See Figure 2.7.

2.3 AC line filter

The AC line filter is an important part of the amplifier because it reduces noise and interference from the internal switching circuitry to prevent its radiation into the AC wiring. It also contains part of the housekeeping supplies for the two audio modules; without the housekeeping supplies, the amplifier's power supply modules will not start up even if they are in working order.

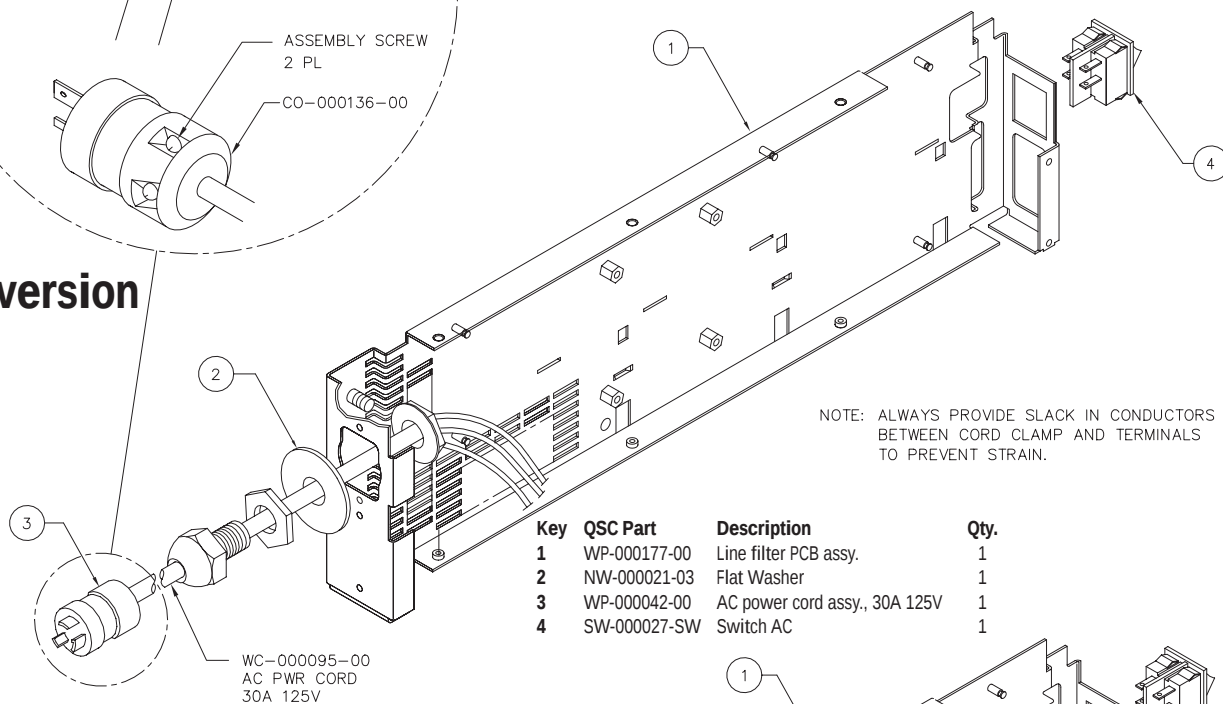
The line filters are the same among the three amplifier models, but the 120-volt and 230-volt versions are not interchangeable. See Figure 2.8.



120V version

NOTE:

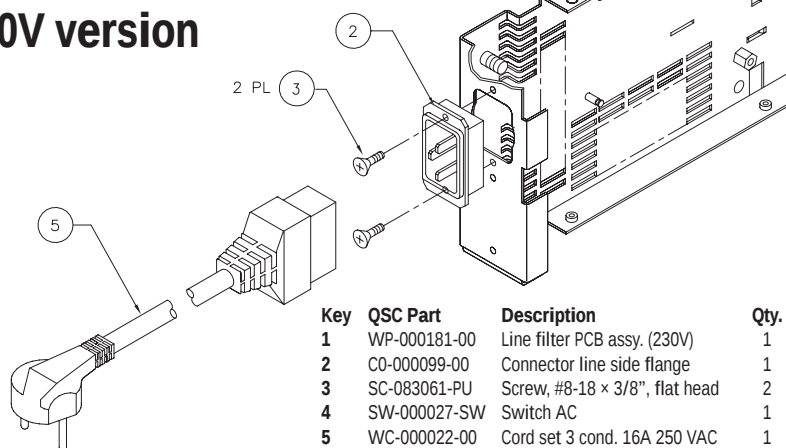
1. DO NOT TIN CONDUCTORS.
2. LOOSEN ALL TERMINAL SCREWS.
3. INSERT PROPER CONDUCTOR BETWEEN WIRE CLAMPING NUT AND TERMINAL PLATE. TIGHTEN TERMINAL SCREWS 9-12" LBS.
4. CONNECT GREEN WIRE TO TERMINAL WITH GREEN HEX HEAD SCREW, WHITE WIRE TO SILVER TERMINAL SCREW, BLACK WIRE TO GOLD TERMINAL SCREW.
5. CLOSE SIDES, TIGHTEN ASSEMBLY SCREWS UNTIL SIDES ARE FULLY CLOSED.



NOTE: ALWAYS PROVIDE SLACK IN CONDUCTORS BETWEEN CORD CLAMP AND TERMINALS TO PREVENT STRAIN.

Key	QSC Part	Description	Qty.
1	WP-000177-00	Line filter PCB assy.	1
2	NW-000021-03	Flat Washer	1
3	WP-000042-00	AC power cord assy., 30A 125V	1
4	SW-000027-SW	Switch AC	1

230V version



Key	QSC Part	Description	Qty.
1	WP-000181-00	Line filter PCB assy. (230V)	1
2	CO-000099-00	Connector line side flange	1
3	SC-083061-PU	Screw, #8-18 x 3/8", flat head	2
4	SW-000027-SW	Switch AC	1
5	WC-000022-00	Cord set 3 cond. 16A 250 VAC	1

Figure 2.8. Assembly details of the AC line filter.

2.4 Power supply servicing

Bench testing power supply modules

The housekeeping supplies provide electrical power to certain control circuitry in their respective audio channel modules. The control circuitry in turn enables the power supply module to operate. Thus, a power supply module normally will not operate when it is not connected to an audio channel.

The remote control circuit shown in Figure 2.9 allows the power supply module to operate without an audio channel module connected. This is useful for verifying the power supply's operation independently of other amplifier circuitry.

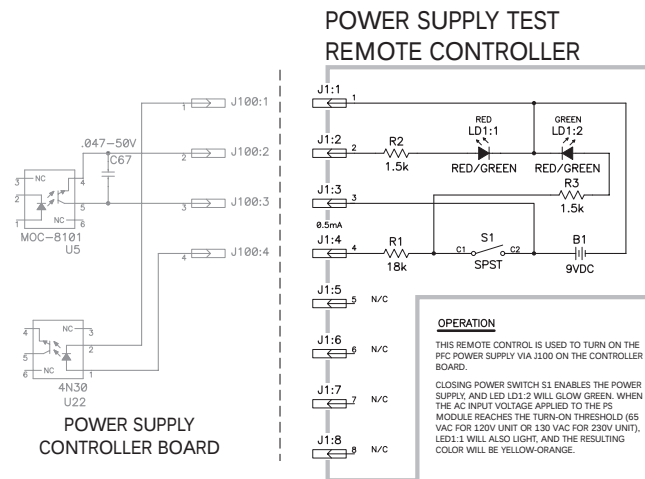


Figure 2.9. Remote controller for power supply testing.

Parts list

- 8-pin header (J1)
- 9-volt battery (B1)
- SPST switch (S1)
- Three-lead tri-color LED (LD1)
- 18 k Ω resistor (R1)
- Two 1.5 k Ω resistors (R2 and R3)

Replacement parts

Part reference	New part #	Description	... replaces old part #	Description	Which models?
Q1, Q2, Q3, & Q4	QD-000188-00	IXF55N50 55A MOSFET	QD-000119-00	IXF48N50 48A MOSFET	All models
R5, R6, R7, & R8	RE-47501-10	4.75 Ω ¼-watt resistor	RE-10002-10	1 Ω ¼-watt resistor	All models
D1, D2, D7, & D8	QD-000183-00	60EPS08 diode	QD-000126-00	DSEI60-06A diode	120V models only
D1, D2, D7, & D8	QD-000182-00	60EPS12 diode	QD-000167-00	DSEI60-12 diode	230V models only
C20	CA-410009-00	0.1 μ F 250V capacitor	CA-347400-00	0.047 μ F 400V capacitor	All models

Replacing switching MOSFETs in PFC models

Replacing the power MOSFETs and their associated components requires that the power supply modules be removed from the amplifier.

Tools and materials required:

- Soldering iron
- Rosin-core solder (60/40 or 63/37 eutectic type)
- Long-nose pliers
- #1 and #2 Philips screwdrivers
- Thermal grease (heat sink compound)
- Small diagonal cutters
- Desoldering equipment or solder braid
- Micro-torque wrench with 9/64" Allen (hex) and #1 Philips bits

If fuse F1 on the power supply module's printed circuit board (PCB) is blown, you will also need a 1A 250V 5×20 mm slow-blow fuse (QSC part # **MS-000113-00**) to replace it with. Also, the alumina insulator between the diodes and the heat sink is very fragile and often breaks when the diodes are removed; replace it with QSC part # **PL-000085-00**.

To ensure that the devices will share power equally, the four MOSFETs must have similar V_{DSS} . For a set of four matched MOSFETs, as pre-sorted by QSC production, order QSC part # **WP-000056-00**.

Procedure: replacing Q1, Q2, Q3, and Q4

1. Remove the heat sink assembly to which the MOSFETs are attached.

To do this, remove the clamps on the four diodes (D1, D2, D7, and D8) to free them from the heat sink. Keep the two mica insulators (from between the diodes and clamps) and set them aside for when you reassemble the heat sink and diodes later; they are fragile, so be careful handling them but replace any that are damaged. The QSC part number is **PL-000059-00**.

Remove the alumina insulator

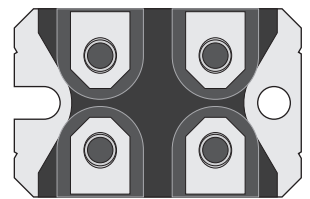


Figure 2.10. Bottom view of a MOSFET

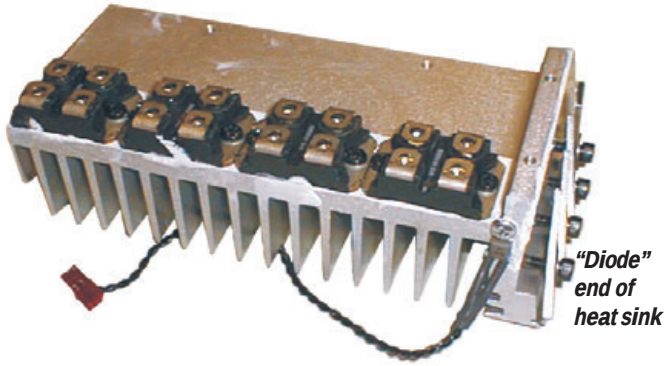


Figure 2.10: The heat sink assembly, with all four MOSFETs attached. The “diode” end of the heat sink is at right; the slots in the MOSFETs would face to the left.

(from between the diodes and the heat sink); it is extremely fragile, so it is best to replace it during reassembly with a new one.

Then remove the 16 screws that attach the MOSFETs to the printed circuit board (PCB); if the MOSFETs are blown, some of the mounting screws may be melted or damaged. The new MOSFETs come with new mounting screws with captive washers, so there is no need to save old ones for reuse.

Remove the other four mounting screws so that the heat sink assembly is free from the circuit board. Set the hardware aside.

Find where the twisted wire lead from the heat sink’s thermal sensor attaches to a pair of pins on the board, and unplug it. Detach the gate drive cable, which is an 8-conductor ribbon cable that plugs into an 8-pin header. Lift the heat sink and MOSFET assembly from the board. If the strip of fishpaper (Figure 2.11) remains stuck to the PCB, leave it there; if it comes loose, set it aside for re-assembly later.

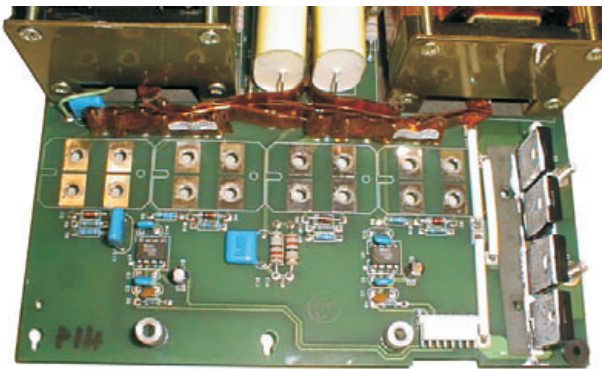


Figure 2.11. The silk screen on the circuit board shows the correct orientation of the MOSFETs. This photo also shows the four resistors (R5–R8) to be replaced.

2. Remove the MOSFETs from the heat sink. Thoroughly clean the old thermal grease off the heat sink. Apply fresh thermal grease to the new MOSFETs (QSC part # QD-000188-00) and attach them to the heat sink.

Make sure the new MOSFETs are correctly oriented. One end of each MOSFET has a mounting hole, while the other has an open-ended slot (see Figure 2.9). Each MOSFET must be mounted so the slot end faces *away* from the diode end of the heat sink (see Figure 5.11). Try to get the MOSFETs evenly spaced and as close to perfectly in line as you can. The silk screen print on the circuit board (see Figure 5.12) shows the correct orientation.

Tighten the MOSFET mounting screws to 32–35 lb-in (3.6–4.0 N-m) torque. Do not over-torque them.

3. Remove the four diodes on the circuit board (D1, D2, D7, and D8). See Figure 2.12.
4. Check the value and rating labeled on capacitor C20 (see Figure 2.13). If it is not a 0.1 μ F 250V capacitor (early modules will have the original 0.047 μ F 400V component instead), replace it with QSC part # **CA-410009-00**.
5. Remove resistors R5 through R8 (see Figure 2.11) and replace them with 4.75 Ω ¼-watt resistors (QSC part # **RE-47501-10**).
6. Set the MOSFET and heat sink assembly upside-down and place the PCB on top of it. Make sure all the threaded holes in the heat sink and the MOSFETs line up exactly with the holes in the board. If any MOSFETs don’t line up, reposition them so they do because misaligned mounting screws can damage them when tightened.

Make sure the fishpaper strip is in place, and then reattach the MOSFET and heat sink assembly to the PCB. Make sure you use the correct screws and washers in each location. Tighten the four heat sink screws to 32–35 lb-in (3.6–4.0 N-m) torque and the MOSFET mounting screws to 12 lb-in (1.4 N-m). Do not over-torque them.

CAUTION: Overtightening its mounting screws will destroy a MOSFET. When tightening a screw, use the split lockwasher as a visual guide; as soon as it is flattened, the screw is tight enough.

Plug the thermal sensor lead onto its two pins on the circuit board.

7. Clear any solder from the circuit board holes for the four diodes. Apply a thin coating of new thermal grease to both sides of the alumina strip and set it in place on the heat sink. Insert the four new diodes (120V models: QSC part # **QD-000183-00**; 230V models: QSC part # **QD-000182-00**) into their holes in the PCB, but do not solder them in place yet. Then set the two mica insulators in place over the diodes (they will overlap in the middle), and clamp and fasten the diodes to the heat sink; tighten the screws to 32–35 lb-in (3.6–4.0 N-m) torque. Do not over-torque them. As you do



Figure 2.12. These four diodes need to be replaced.

this, make sure the diodes are straight and evenly spaced, and reposition them if necessary.

8. Solder the four diodes to the circuit board.
9. Reattach the gate drive cable.
10. Check the fuse (see Figure 2.14). If it is blown, replace it with a slow-blow 1A 250V 5×20 mm fuse (QSC part # **MS-000113-00**).
11. Repeat the procedure for the other channel's power supply board if it also has failed or is to be updated.

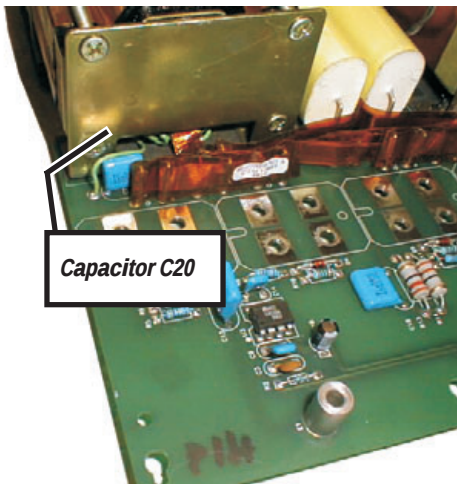


Figure 2.13. Capacitor C20 may also need replacement. See the text.

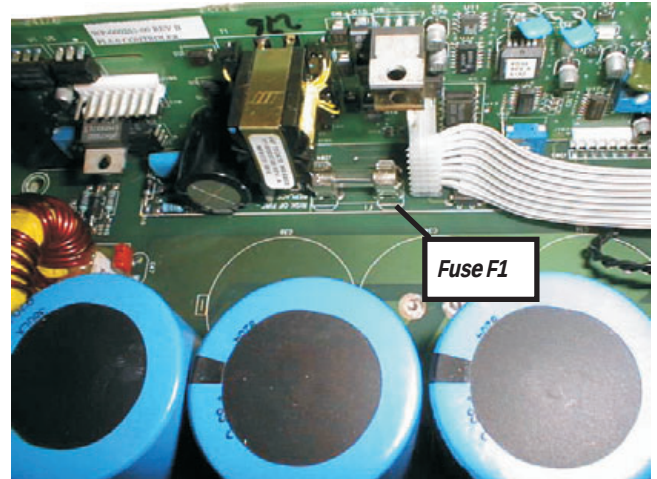


Figure 2.14. Fuse F1 may need replacing.

Suggestions for troubleshooting

If you are repairing a failed power supply module and not simply upgrading a working one, you should determine whether other components have also failed.

Typical collateral failures around PFC power supply module failures include:

Blown high rail diodes: Check D12 and D14 for sooty or blackened thermal grease around their edges or for any other signs of damage. If you suspect that they might be damaged, remove them from the circuit board and check them with the diode test function on a DMM. Replace them if necessary (QSC part # **QD-000126-00**). These diodes are clamped onto the other heat sink, at the end next to the power transformer. If you remove the diodes, thoroughly clean away the old thermal grease from that portion of the heat sink and from the mica insulators; apply fresh thermal grease when you reassemble or replace them.

Blown driver ICs: The two MIC4452BN MOSFET driver ICs, U1 and U3, are under the MOSFET heat sink. Frequently, when MOSFETs fail, the driver IC associated with the transistor(s) fails, too. The IC's QSC part # is **IC-000064-00**.

Fuses: Conditions that cause the MOSFETs to fail also frequently cause the fuses on the AC line filter to blow. The filter circuit board runs along the side of the amplifier between the AC power cable and the AC power switch. Each channel has two fast-blow ceramic AC fuses, for a total of four (120V models: 125V 25A, QSC part # **MS-000112-00**; 230V models: 250V 15A, QSC part # **MS-150250-FU**). Check them and replace any that are blown. Also on the AC line filter board are the housekeeping supplies for each channel; if they do not work, the channels will not start even if the power supply modules are in perfect working order. The housekeeping supplies each use a 250V 1A slow-blow fuse (QSC part # **MS-000113-00**).

Adjusting and calibrating the power supply module

Adjusting and calibrating the power supply card will help ensure the success of the repair; this portion of the service bulletin describes a series of five procedures for doing so. Because of the specialized nature of the power supply fixture required for these procedures, it can only be performed at the QSC factory by trained personnel. Follow these procedures exactly and in order.

There are four trim pots, VR1–VR4 (see Figure 2.14), on the controller card that must be adjusted correctly before reinstalling the power supply in the amplifier:

VR1 On the PL 9.0^{PFC}, this trim pot sets $V_{OUT}/32$; on the PL 6.0^{PFC}, it sets $V_{OUT}/26.6$.

VR2 This trim pot is for balancing the transformer to the PFC circuitry.

VR3 This trim pot sets the maximum 2-ohm output power. For the PL 9.0^{PFC}, it will be set for 4500 watts @ 2 ohms at 2 kHz; for the PL 6.0^{PFC}, it will be set for 3600 watts @ 2 ohms at 2 kHz.

VR4 This trim pot sets the power supply's idle voltage. For the PL 9.0^{PFC}, it will be set for 191.3 volts DC; for the PL 6.0^{PFC} it will be 166.5 volts DC.

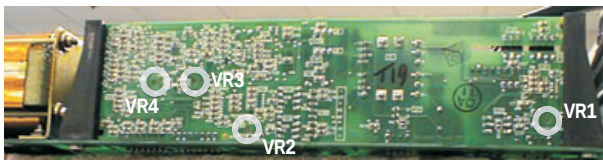


Figure 2.15. The locations of the four trim pots, VR1–VR4

Tools and materials needed:

- PFC power supply fixture with external power supply and CMP (Control-Monitor-Power) box
- Two digital multimeters (DMM #1 and #2) with clip-on leads
- Digital multimeter (DMM #3) with clamp-on AC current probe
- 0–240 VAC Variac™, Powerstat™, or similar variable AC transformer; 60 amperes or higher rating, with RMS voltage and current metering
- 120 VAC power (for the fixture's housekeeping supply)
- Four-channel oscilloscope with $\times 1/\times 10$ probes
- Oscilloscope with differential probe (*optional; see step 10 of the V_{OUT} procedure*)
- Small pocket-type flat-blade screwdriver
- Grounded anti-static work surface
- Audio Precision (AP) workstation with PFC test procedure files* and 2-ohm load resistor banks (minimum power handling capacity: 1250 watts per 8-ohm resistor; 5000 watts total in 2-ohm configuration).

*The four AP test procedure files are available on the QSC Technical Support CD-ROM: Pfcxf.tst; Pfcpwr2k.tst; Pfcpwr20.tst; and Pfctherm.tst.

The PFC power supply fixture

The PFC power supply fixture is a special test bed for PowerLight 6.0 and 9.0 supply modules. It has the necessary connections and indicators for adjusting, calibrating, and testing the modules. It also contains one audio channel of a PowerLight 9.0 to allow testing of the module's capability to power an actual amplifier channel. The fixture is custom built by QSC.

Front panel switches and indicators

From left to right (Figure 2.14):

- **Power switch.** For the AC lines to the power supply module being tested.
- **Power indicator.** It lights when the fixture is connected to AC power and is turned on.
- **Blown fuse indicator.** Connected across the large fuse under the door in the top of the fixture chassis, this indicator will light if the fuse blows. The fuse, however, is merely a backup in case the CMP box's solid-state electronic fuse malfunctions.
- **Protect, Standby, and Power indicators.** In the portions of the test that use the amplifier channel, these LEDs function just as they do on a regular amplifier.
- **Fan switch.** Some portions of these procedures require the module fans running, and others need them off.
- **"Set V_{OUT} " switch.** This switch is used for the first procedure.
- **" I_{SET} " switch.** This switch also is used in the first procedure for checking the module's I_{SET} circuit.
- **" I_{SET} " indicator.** This tri-color LED indicates the status of the module's I_{SET} circuit.

Rear panel switches and attachments

From left to right (Figure 2.15):

- **Audio input.** This is where to connect the signal output from the AP workstation.
- **DC high rail outputs.** These are two pairs of red and black binding posts, and they carry the DC output of the supply module's high rails. Connect DMM #1 to one of these sets of binding posts.
- **Audio output.** This Neutrik Speakon connector carries the audio output of the fixture's amplifier channel. Connect this



Figure 2.16. The front of the fixture. The amplifier channel's gain control is to the right, out of the picture

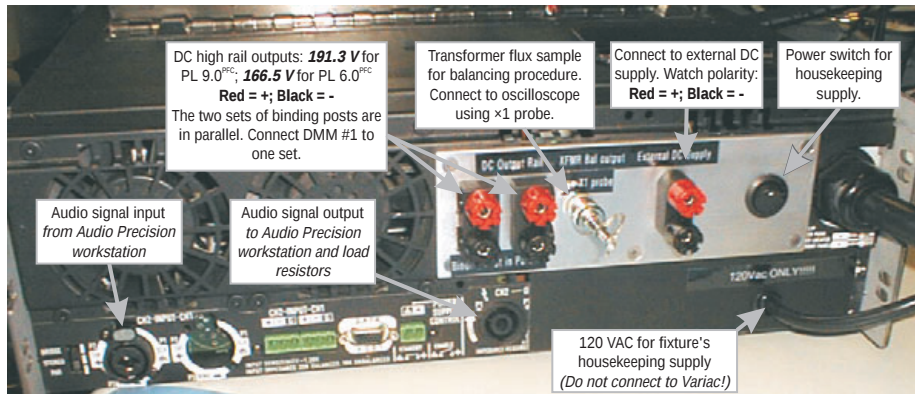


Figure 2.17. The fixture's rear panel.

output to the AP workstation and to the load resistors.

- **Transformer flux sample.** Connect the tip of an oscilloscope's $\times 1$ probe to the exposed conductor at the tip of this attachment, and connect the probe's reference clip to the loop. This is used in the transformer balancing, the third procedure in the supply module adjustment and calibration.
- **DC supply input.** This dual binding post set is for connecting the fixture to the external power supply.
- **120 VAC power cord.** This connects to a regular AC outlet and provides power for the fixture's "housekeeping" supply, which powers the various circuits and indicators.
- **Housekeeping supply power switch.** This small rocker switch lets you turn off the housekeeping supply when the fixture is not in use.
- **Fixture power cord.** This large power cord connects to the Variac and provides AC power for the power supply module under test.

Other attachments

See Figure 2.17.

- **Lower barrier strip.** Connect the supply module's five black DC rail wires to the lower barrier strip's terminals for the first procedure, setting V_{OUT} .

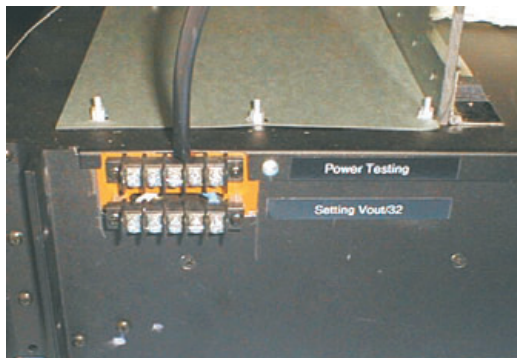


Figure 2.18. The two barrier strips. Use the lower one for the first adjustment (setting $V_{OUT}/32$ or $V_{OUT}/26.6$), and the upper one for the other adjustments.

- **Upper barrier strip.** Connect the DC rail wires to the upper barrier strip for the other procedures.
- **Control connection.** Above the barrier strips is a multiconductor cable that connects to the 8-pin header on the controller card of the power supply module under test.
- **AC wires.** Located at the top of the front panel, these two wires connect to points E2 and E3 on the supply module.

Procedure 1 of 5: Setting V_{OUT}

- 1 Turn off all power to the fixture and turn the Variac all the way down. Set the power supply module in place atop the fixture, as shown in Figure 2.18.
- 2 On the test fixture, set switches $V_{OUT}/32$ and I_{SET} in the *up* position. Turn off the fan switch.
- 3 On the power supply module, disconnect the gate drive cable (Figure 13).
- 4 Connect the two AC line wires to the stud terminals on the PCB: white to E2 on the left, black to E3 on the right. Use the long insulated threaded posts to secure the wires to the terminals.
- 5 Connect the power supply module's five black DC output wires, labeled 0 through 4, to the screw terminals on the *lower* barrier strip (Figure 10). Keep them in order; do not cross any of them.
- 6 The external power supply has two dual banana sockets—one is labeled *active* and the other, *dummy*. Connect the fixture's dual banana plug to the external power supply's *active* socket.
- 7 Plug the AC lines for both the external DC supply and the fixture into the Variac.
- 8 Set the CMP box's electronic fuse to a trip threshold of 5 amperes.

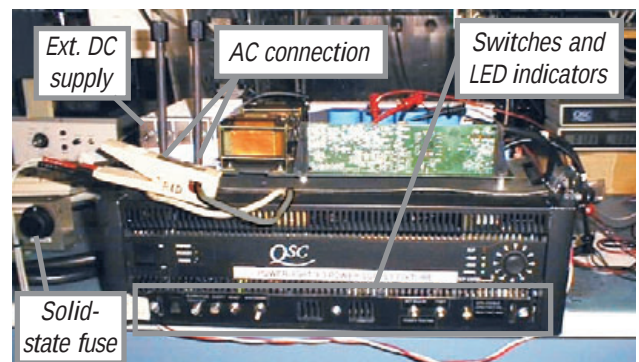


Figure 2.19. The power supply module loaded onto the test fixture.

The CMP box

The CMP box has two digital panel meters that monitor AC voltage and current and a solid-state electronic AC fuse that can be set to trip specific current levels from 0 to 100 amperes.

To set the current trip level, flip the trip set switch down; the AC ammeter will then read the trip current setting. Use the trip set knob to adjust the desired trip point, then flip the switch up.

The BNC jack provides an AC voltage proportional to the AC current: 100 mV RMS = 1.0 ampere RMS. This is useful in the transformer balancing procedure because it allows the use of an external voltmeter with finer resolution (≥ 3 decimal places) than the panel ammeter has.

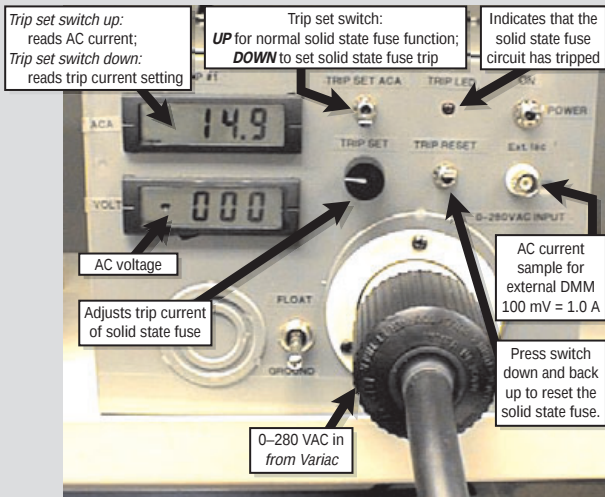


Figure 2.20. The CMP box. The variable AC outlet for the test fixture is on the back of the box.

Important note about repaired PFC power supply modules

After repairing a failed power supply module that had already been calibrated before its failure, either in production or in Technical Services, the **VOUT/32** and **VOUT @ idle** voltages in Procedure 1 only need to be checked and not fully adjusted, unless the measured high rail voltage is not 191.3 volts, ± 1.5 volts, for the PL 9.0 or 166.5 volts, ± 1.5 volts, for the PL 6.0. If the high rail voltages are outside this range, then the module will require full adjustment and calibration.

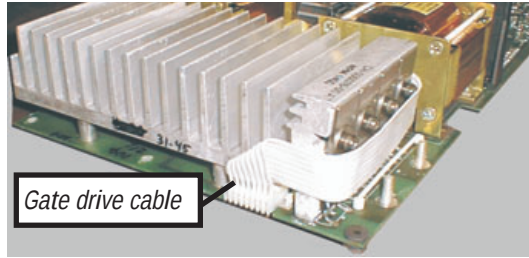


Figure 2.21. The gate drive cable for the MOSFETs. Disconnect it here for the V_{OUT} procedure.

9. Connect DMM #1 to one set of the parallel DC V_{OUT} terminals on the back of the fixture. Connect DMM #2 to the controller card, with the ground or reference lead on the tab of U8, a +12V regulator, and the hot lead on the left leg of capacitor C34. On the board, this point is labeled "VOUT/32."
10. *Note: this step is optional because the replacement diodes specified in this bulletin do not have the leakage problems that many of the original fast diodes had.* Through a differential probe, connect an oscilloscope input between resistor R31 (labeled "OSC") and ground; this will allow you to view the output of the diodes to see if any are leaky.
11. Turn the fixture power switch on. Turn up the Variac gradually until DMM #1 reads 190 volts DC (for the PL 9.0) or 166 volts (for the PL 6.0). You don't need to measure the AC voltage from the Variac yet.
12. Adjust VR1 to obtain a reading on DMM #2 of 5.94 volts DC (for the PL 9.0) or 6.20 volts DC (for the PL 6.0).
13. Flip the I_{SET} switch down. If the LED indicator next to the switch lights green or orange, I_{SET} is good; if red, it is bad and should be rejected for controller board replacement or repair.
14. Turn down the Variac all the way. Turn off the fixture's AC switch. Unplug the external supply's AC line from the Variac.
15. Set the I_{SET} and $V_{OUT}/32$ switches *down*. Remove DMM #2's leads from the controller card.
16. Wait a few seconds for the capacitors to discharge and DMM #1's voltage reading to drop to 60 volts or less.

Procedure 2 of 5: Adjusting idle voltage

1. Re-attach the gate drive cable on the power supply module. Also, disconnect the five DC rail output wires on the right end of the module from the lower barrier strip and attach them to the corresponding screw terminals on the upper barrier strip. Make sure the screw connections are tight and secure.
2. Turn the fixture's AC switch on and turn the Variac up to the appropriate AC voltage: 120 volts AC for a 120V module, or 230 volts AC for a 230V module. The power supply will turn on and begin to draw current when the AC voltage reaches about the halfway point.
3. Adjust VR4 to obtain the a reading of 191.3 volts DC (for the PL 9.0) or 166.5 volts DC (for the PL 9.0) on DMM #1.

Procedure 3 of 5: Adjusting transformer balance

This is done in three stages. In the first two, watch the transformer flux “bubble” waveform on the oscilloscope, and on the third, adjust the AC current to a minimum. To prevent overcurrent cutback due to undervoltage, adjust the Variac to 130 volts for 120-volt modules or 260 volts for 230-volt modules.

1. Set the CMP box's electronic fuse to a trip threshold of 20 amperes (for a 120V module) or 10 amperes (for a 230V module) and turn on the fans.
2. Start the PFC test file (Pfcxf.tst) on the AP workstation. It will put out a 2 kHz sine wave at 0.1 volt RMS and will switch the load resistance to 2 ohms. Turn the fixture's gain control all the way up.
3. Step the signal level up in 0.1 volt increments and watch the transformer flux “bubble” signal on the oscilloscope (vertical scale: 20 or 50 V/div; horizontal scale: 1 or 2 ms/div; $\times 1$ scale). At each step, adjust VR2 to get a smooth, balanced signal. See Figure 14. There should be no spurious oscillations or noise visible.
4. When the audio signal reaches a particular level, the CMP box's electronic fuse will trip. Set the audio signal back to 0.1 volt.
5. Reset the trip point to 40 amperes (for a 120V module) or 20 amperes (for a 230V module) and repeat steps 2 and 3. The electronic fuse should trip at about 2.8 kW of output (measured on the AP), with approximately 1.4 volts input.
6. Reduce the AP's signal level to 0.1 volt. Reset the electronic fuse and increase the signal level so that the output is about 2.5 kW. Gently adjust VR2 to null the AC current on DMM #3 to a minimum.
7. Turn the Variac down to zero and set the electronic fuse to 60 amperes.

Procedure 4 of 5: Adjusting 2-ohm limits

1. If this is a brand new module (not a repair), set VR3 to approximately 4 o'clock. If it is a repair or has otherwise already been calibrated at some time, leave VR3 alone until after the first power sweep.

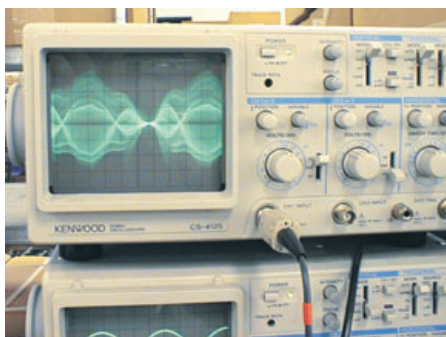


Figure 2.22. A well-balanced transformer flux “bubble.”

2. Set the Variac to 130 volts (for 120V modules) or 260 volts (for 230V modules).
3. Run the AP test file (Pfcprwr2k.tst) for a 2-ohm power sweep test at 2 kHz.
4. Watch the power sweep on the AP monitor and see where the power cutback occurs. The target output power level at 2 kHz is about 4.6 to 4.7 kW for the PL 9.0 or 3.6 to 3.7 kW for the PL 6.0. If the cutback point is not in the target range, carefully adjust VR3 and then repeat the power sweep. It may take more than two or three tries to get the right setting.

CAUTION: During the power sweep, keep a finger on the reset switch of the CMP box. If anything abnormal happens, such as power cutback at a low level, or audible noise from the supply module's transformers, *immediately* flip the reset switch *down* and hit **F1** on the AP computer keyboard to abort the sweep test.

If you stopped the test due to transformer noise, go back and start over at the transformer balancing procedure. If you had not aborted the power sweep, in a short time you would have destroyed the MOSFETs.

If you stopped the test for any other abnormality, you must troubleshoot and repair the supply module before continuing.

5. Load the AP test file Pfcprwr20.tst, which will change the signal frequency to 20 kHz, and repeat step 4. This time, verify that the power cutback does not occur until approximately 4.5 kW for the PL 9.0 or 3.6 kW for the PL 6.0.
6. After completing the power sweeps, press **F1** on the AP computer keyboard.

Procedure 5 of 5: Thermal test

1. On the AP workstation, load the thermal test file Pfctherm.tst. It should select the Pseudo (pink noise) waveform at 2.7 volts RMS amplitude. Make sure the fixture's gain control is turned up full. Load the fixture output with the 2-ohm resistance and shut off the fans.
2. The power supply module should shut down within one minute. The *PROTECT* indicator LED on the front panel will light.
3. After the module shuts down, turn on the fans and await its recovery.

4. Turn off the fixture's AC switch. Turn down the Variac to zero. Turning off the fixture's AC switch will automatically bleed the capacitors down. Disconnect the module from the test fixture and set the AP workstation back to sine wave and 0 volt RMS.

2.5 AC voltage conversions

WARNING: Regulatory agencies require that any operating voltage conversions from 120 volts to any other voltage be done *only* by QSC's factory service. Any other operating voltage conversions may be done only by a QSC-authorized service center or international distributor.

The power supply modules and line filter modules in the PowerLight 6.0 II, PowerLight 6.0^{PFC}, and PowerLight 9.0^{PFC} are made for specific AC line voltages; they cannot be converted from one to another. To convert an amplifier from 120 to 230 volts AC or vice-versa requires replacing both power supply modules and the AC line filter. For this reason, it is seldom economically justifiable to convert one of these models.

2.6 Bias adjustments

These three amplifier models have a trimpot for bias adjustment on each audio channel. However, adjusting it is far more complex than on most amplifiers, so it should only be done when working on the module at board level, or as an emergency measure if the module is running too hot at idle.

3. Troubleshooting

Because of the high complexity of the circuitry used in the amplifiers covered by this manual, most, if not all, of your troubleshooting efforts will be at board level. Proper component-level troubleshooting and service will also usually require specialized test fixtures that may not be economically sensible to have unless you do a high volume of service work on these amplifiers. See the Servicing chapter of this manual for information on these fixtures.

3.1 Initial check

When first checking the operation of a suspect amplifier on the bench, always turn your variable transformer down to zero before plugging the amplifier in. After you turn the amplifier on, gradually turn up the AC voltage as you observe the amplifier's behavior and its current draw; this will help you determine what, if anything, is wrong with it. If you see or smell smoke, flames, or any other signs of short circuits or excessive current draw, quickly turn the AC back down to zero. If no such problems occur, it is usually safe to turn the AC up to the amplifier's full operating voltage for further testing. The following procedure will help you determine if the amplifier has a problem and if so, where it may be located.

Starting at zero volts

1. Start with the variable transformer at zero.
2. Connect an AC voltmeter to monitor the transformer output and an AC ammeter to monitor the current delivered to the amplifier.
3. Connect the amplifier to the output of the variable transformer.
4. Turn on the amplifier.

LED activity starts

5. Gradually turn up the AC voltage. When it reaches about 25% of the amplifier's operating voltage (30 volts for a 120-volt model or 60 volts for a 230-volt model), the power LEDs on both channels should start to flicker. By the time it reaches about 40% (50 volts for a 120-volt model or 100 volts for a 230-volt model), both power LEDs and both protect LEDs should be on.
6. Continue increasing the AC voltage. When it reaches about 70 volts (120-volt model) or 140 volts (230-volt model), both protect LEDs should go out and all four fans should start up.

Check current draw

7. At this point, the current draw for a PowerLight 6.0^{PFC} or PowerLight 6.0 II should be about 2 A or less for a 120-volt model or 1 A or less for a 230-volt one. For a PowerLight 9.0^{PFC}, it should be about 2.5 A or less (120-volt model) or 1.25 A or less (230-volt model).

8. If all is well, you can safely increase the AC voltage to the amplifier's normal operating level and test its audio performance. Once the AC voltage is at full, the amplifier should behave normally. On the left side of the front panel, the two power LEDs should be lit, while the standby and protect LEDs should not. On the right, the signal, -20 dB, -10 dB, and clip LEDs should light only in response to an output signal. If they do not, continue by following the preliminary troubleshooting guide.

3.2 Preliminary troubleshooting

Abnormal behavior of the amplifier indicates some problem in one or more of its parts. You can use the observed patterns of this behavior to help deduce where the problem lies. The amplifier has two channels with independent power supplies; a defect may exist on one channel that does not affect the other.

Power, Standby, and Protect LEDs: None lit on one or both channels

- The main fuse for the affected channel(s) may be blown. The main fuses are located in the line filter assembly and are accessible when the amplifier's top cover is removed.
- The audio module's housekeeping supply is not working on the affected channel(s). This is a rare failure because the housekeeping supply has very reliable protection against short circuits and other possibly destructive situations. Without its housekeeping supply, though, the audio module cannot signal the power supply module to turn on.

Protect LED lit

- If the Protect LED lights steadily, without interruption, the power supply module is not working.
- If the amplifier is hot, it has probably overheated and will stay in protect until it cools down to a safe temperature.

Amplifier endlessly cycles on, into protect, and then off, and over again

- There is a defect in the audio module—probably in the output circuitry—that prevents the power supply module, as it starts up, from reaching its proper rail voltages or places DC on the output. When this happens the channel immediately switches into protect, and then the power supply resets and tries to start again.

3.3 Further troubleshooting

This procedure allows you to further isolate the problem and determine which board or module is defective.

Start at zero volts

1. Turn the variable transformer to zero and turn the amplifier off.

Open the amplifier

2. Remove the top cover of the amplifier. See the Servicing chapter for instructions and diagrams.
3. Check the continuity of the two main fuses, located at the top of the line filter assembly near the front of the amplifier. Replace any that are open.

Ramp up the AC voltage

4. Turn up the AC voltage to about 30 volts (120-volt model) or 60 volts (230-volt model).
5. Using pliers, pull the connectors for the two housekeeping supply wires off of the audio module of the affected channel. Measure the voltage between the wires. It should be approximately 40 volts DC. If the voltage is significantly lower or is not there at all, there may be a problem with the portion of the housekeeping supply that is on the line filter assembly.
6. If the voltage is good, reconnect the housekeeping supply wires.
7. Disconnect the latching connector on the cabling that goes to the input board. If the channel now starts up, then the problem was on the input board—perhaps a defective op amp; replace or repair the input board.
8. If disconnecting the input board did not make the channel start up, reconnect it and turn the amplifier off.
9. Disconnect the power supply control ribbon cable from the 8-pin header on the audio module. Attach the power supply remote controller (See the section on servicing power supplies in Chapter 2) to the ribbon cable.
10. Loosen the screw terminals of the five power supply wires at the front of the audio module. Remove the wires from the terminals and make sure they are arranged so none of them will short out against anything.
11. Turn switch S1 on the remote controller to *on* and turn the amplifier on. The LED on the remote controller should glow green.
12. Increase the AC voltage to 65 volts (120-volt model) or 130 volts (230-volt model).
13. Measure the voltages on the supply wires 1 through 4, using wire 0 as a reference.

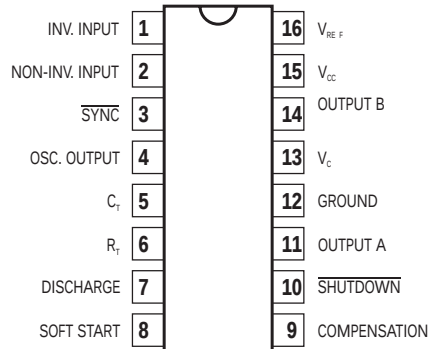
4. Parts

4.1 Semiconductor package descriptions and pinouts

Legend: A = anode; B = base; C = collector; D = drain; G = gate; K = cathode; S = source

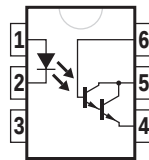
IC-000024-00

Controller, PWM, SG3525AN; 16-pin DIP



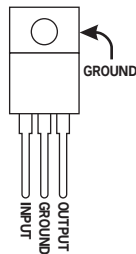
IC-000031-00

Opto isolator, 4N30; 6-pin DIP



IC-000042-00

Voltage regulator, +5V, MC7805CT; 3-pin TO-220

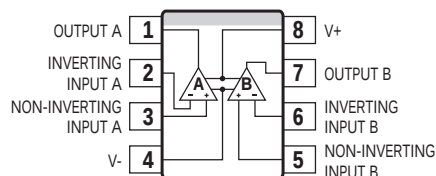


IC-000046-30

Op amp, dual, TL072; 6-pin SMT

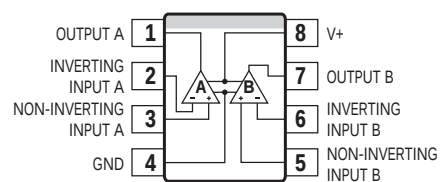
IC-000048-30

Op amp, dual, MC33078; 6-pin SMT



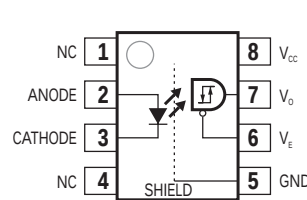
IC-000047-30

Comparator, dual, LM393; 8-pin SMT



IC-000049-00

Opto coupler, HCPL2200; 8-pin SMT

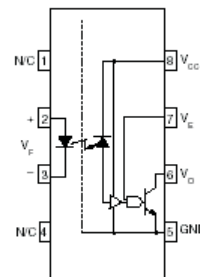


TRUTH TABLE
(POSITIVE LOGIC)

LED	ENABLE	OUTPUT
ON	H	Z
OFF	H	Z
ON	L	H
OFF	L	L

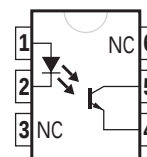
IC-000050-00

Opto coupler, 6N137; 8-pin DIP



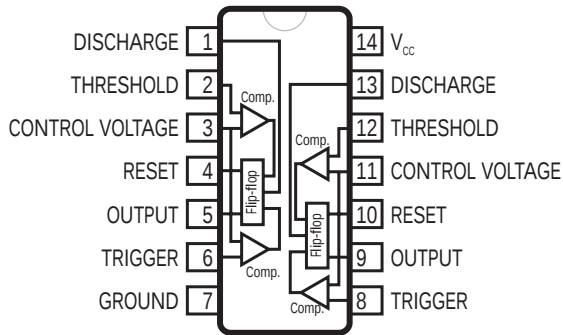
IC-000051-00

Opto isolator, MOC8101; 6-pin DIP



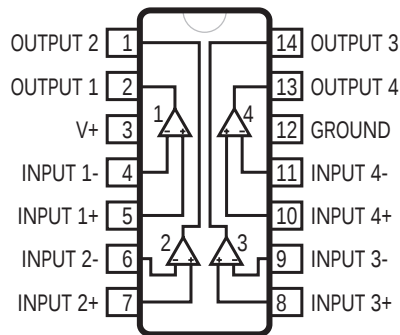
IC-000053-30

Timer, dual, LM556; 14-pin SMT



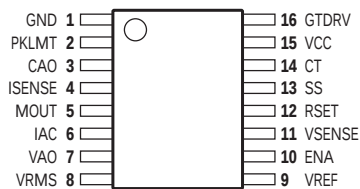
IC-000054-30

Comparator, quad, LM339AM; 14-pin SMT



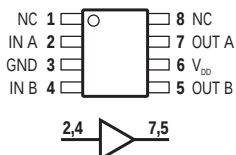
IC-000055-30

Regulator, power factor, UC3854B; 16-pin SMT



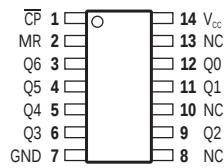
IC-000056-30

Driver, MOSFET, TC4427; 8-pin SMT



IC-000057-30

Counter, ripple, 74HC4024, SMT; 14-pin SMT

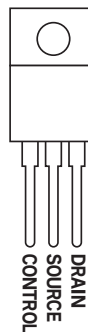


IC-000059-00

Top switch, TOP202; TO-220

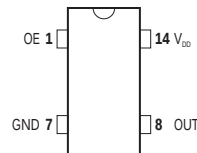
IC-000235-00

Top switch, TOP224; TO-220



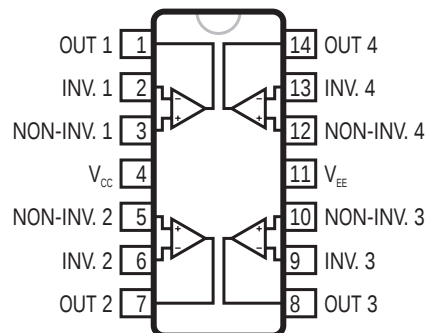
IC-000060-00

Oscillator, clock, 6.000 MHZ; 4-pin DIP



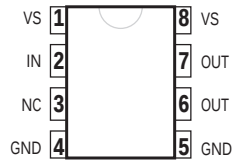
IC-000063-30

Op amp, quad, MC33074; 14-pin SMT



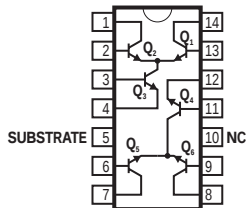
IC-000064-00

Driver, MOSFET, 4452BN; 8-pin DIP



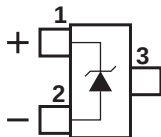
IC-000067-30

Differential amplifier, dual, CA3054; 14-pin SMT



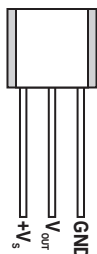
IC-000070-30

Voltage reference, +2.5V, LM4040DIM3X-2.5; 3-pin SOT-30 (SMT)



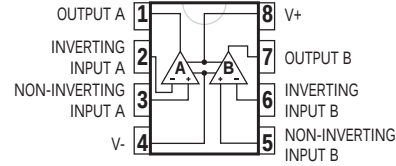
IC-000071-00

Sensor, temperature, LM35DZ; TO-92



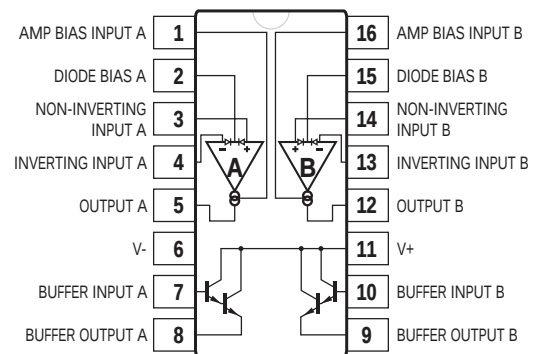
IC-000072-OP

Op amp, dual, TL072; 8-pin DIP



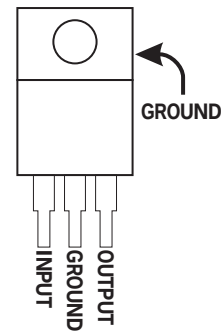
IC-000073-30

Transconductance op amp, DUAL, LM13600M; 16-pin SMT



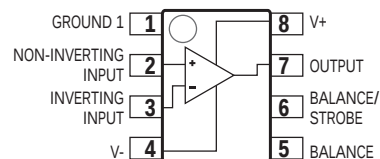
IC-000085-00

Voltage regulator, +12V, LM2937ET-12, low drop out; TO-220



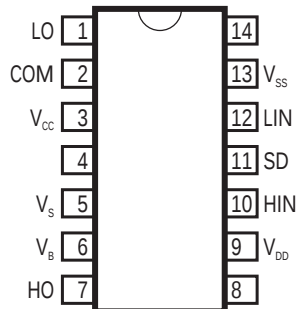
IC-000133-30

Comparator, single, LM311; 8-pin SMT



IC-000134-00

Driver, MOSFET, IR2110; 14-pin DIP



QD-000024-QD

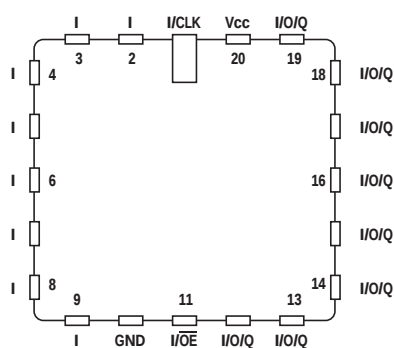
Diode Zener, 6.2V, , 0.25W, DZ901116G, DO-35



PD-000036-30

Power supply signal management, GAL16V8, PL9.0^{PFC} and PL6.0^{PFC}

This device must be programmed by QSC before installation.



QD-000042-00

Diode rectifier ultrafast, 400V, 3A, MUR440, DO-201AD, 50 ns



QD-000022-QD

Diode Zener, 18V, 1W, 1N4746A, DO-41

QD-000023-QD

Diode Zener, 180V, , 1.5W, 1N5955A, DO-41

QD-000047-00

Diode Zener, 200V, , 1.5W, 1N5956B, DO-41

QD-000080-20

Diode Zener, 11V, 1W, 1N4741A, DO-41

QD-000159-20

Diode Zener, 47V, 1W, 1N4756, DO-41

QD-000159-20

Diode Zener, 47V, , 1W, 1N4756, DO-41



QD-000052-00

LED green, T-1, diffused

QD-000053-00

LED yellow, T-1

QD-000054-00

LED red, T-1



QD-000062-10

Transistor NPN 40V, 0.2A, 1.5W, 2N3904, TO-92

QD-000063-10

Transistor PNP 40V, 0.2A, 1.5W, 2N3906, TO-92

QD-000065-10

Transistor PNP, 300V, 0.5A, 1.5W, MPSA92, TO-92

QD-000123-10

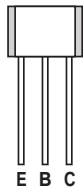
Transistor NPN, 300V, 0.5A, 0.68W, MPSA42, TO-92

QD-000124-10

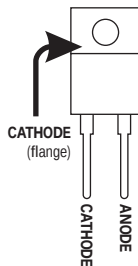
Transistor PNP Darlington, 30V, 0.5A, 0.625, MPSA63, TO-92

QD-000164-10

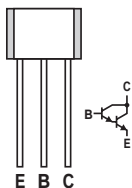
Transistor NPN, 200V, 0.5A, 0.625W, MPSA43, TO-92

**QD-000074-00**

Diode rectifier ultrafast, 400V, 15A, MUR1540, TO-220, 50 ns

**QD-000078-10**

Transistor NPN Darlington, 30V, 0.5A, 1.5W, MPSA13, TO-92



PowerLight 9.0^{PFC}, PowerLight 6.0^{PFC}, PowerLight 6.0 II Service Manual
Parts lists

QD-000102-30

Diode, 75V, 0.075A, IMBD4148, SOT-23, 4 ns

QD-000108-30

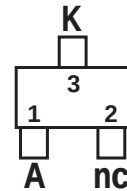
Diode, 200V, 0.2A, BAS21, SOT-23, 50 ns

QD-000137-30

Diode Schottky, 15V, 0.01A, , MMBD301LT1, SOT-23, VF MAX 0.6V

QD-000168-30

Diode Schottky, 70V, 0.2A, , BAS70-04, SOT-23

**QD-000103-30**

Transistor NPN, 40V, 0.2A, 0.2W MMST3904, SOT-33

QD-000104-30

Transistor PNP, 40V, 0.2A, 0.2W MMST3906, SOT-33

QD-000105-30

Transistor NPN, 300V, 0.2A, 0.2W MMBTA42, SOT-33

QD-000106-30

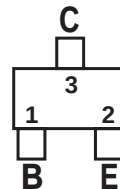
Transistor PNP, 300V, 0.2A, 0.2W MMBTA92, SOT-33

QD-000127-30

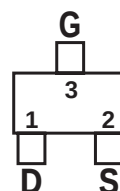
Transistor PNP, 20V, 0.05A, 0.35W, MMBTH81, SOT-23

QD-000128-30

Transistor NPN, 25V, 4A, 0.5W, MMBTH10, SOT-23

**QD-000107-30**

JFET N-channel, 35V, PMBFJ112, SOT-23, Rds-ON 50 ohms



QD-000109-30

Diode Zener, 4.7V, 0.3W, BZX84C4V7, SOT-23

QD-000110-30

Diode Zener, 6.2V, 0.3W, BZX84C6V2, SOT-23

QD-000111-30

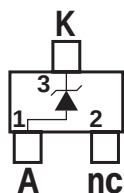
Diode Zener, 12V, 0.3W, BZX84C12, SOT-23

QD-000113-30

Diode Zener, 10V, , 0.3W, BZX84C10, SOT-23

QD-000248-30

Diode Zener, 15V, 350MW, BZX84C15TR, SOT-23

**QD-000114-30**

Diode Zener, 150V, 600W peak, P6SMB150AT3, SMB

QD-000115-30

Diode rectifier ultrafast, 600V, 1A, MURS160T3, SMB, 75 ns

QD-000116-30

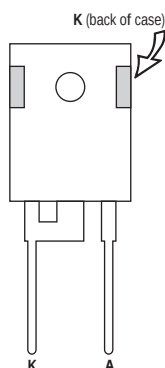
Diode rectifier ultrafast, 200V, 1A, MURS120, SMB, 35 ns

**QD-000117-00**

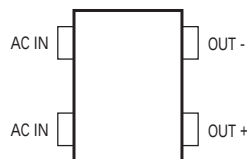
Diode rectifier fast, 600V, 60A, , DSEI60-06A, TO-247AD, 35NS

QD-000160-00

Diode rectifier ultrafast, 200V, 60A, APT60D20B, TO-247AD, 85 ns

**QD-000118-00**

Bridge rectifier, 1000V, 1A; 4-pin DIP

**QD-000120-20**

Diode rectifier ultrafast, 200V, 1A, , MUR120RL, DO-41, 35NS

QD-004004-DX

Diode, 400V, 1A, 1N4004, DO-41, 2US

QD-004753-ZT

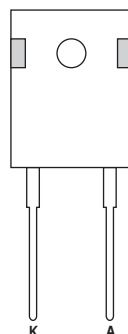
Diode Zener, 36V, 1W, 1N4753A, DO-41

**QD-000125-00**

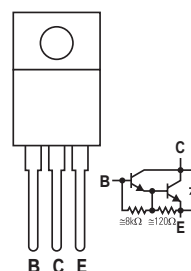
Diode rectifier fast, 600V, 37A DSEI30-06A, TO-247AD, 50 ns

QD-000126-00

Diode rectifier fast, 600V, 75A, , DSEI120-06A, TO-247AD, 50NS

**QD-000129-00**

Transistor PNP, 100V, 5A, 28W, MJF127, TO-220

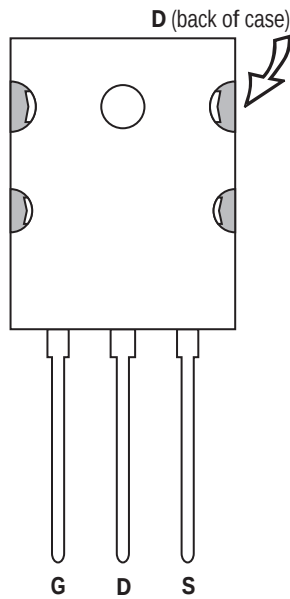


QD-000131-00

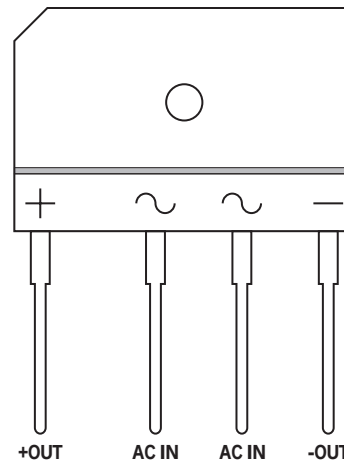
MOSFET N-channel, 70V, 110A, 500W, IXFK110N07, TO-264

QD-000132-00

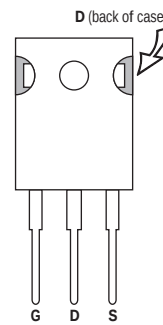
MOSFET N-channel, 200V, 74A, 416W, IXTK74N20, TO-264

**QD-000170-00**

Bridge rectifier, 600V, 50A, in-line

**QD-000176-00**

MOSFET N-channel, 55V, 81A, 170W, IRFP054N, TO-264

**QD-000157-10**

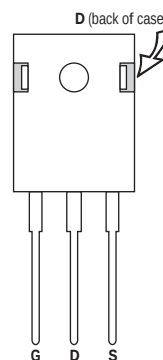
Diode, 1000V, 1.5A, 1N5399, DO-15

**QD-000163-30**

LED red, SML-010, voltage reference

**QD-000177-00**

MOSFET N-channel 200V, 46A, 280W IRFP260, TO-264



QD-000182-00

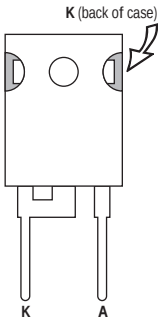
Diode, 1200V, 60A, , 60EPS12, TO-247AD

QD-000183-00

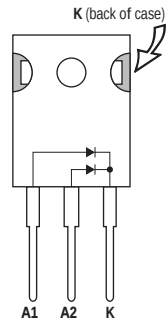
Diode, 600V, 60A, 60EPS08, TO-247AD, PL9.0

QD-000228-00

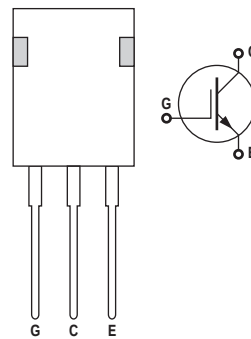
Diode, 600V, 60A, 60EPS08, TO-247AD, PL6.0

**QD-000235-00**

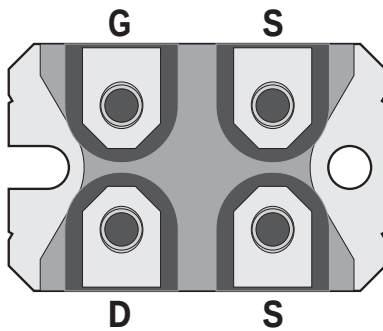
Rectifier dual common cathode, 500V, 30A, BYV74W-500, TO-247

**QD-000243-00**

IGBT, 600V, 32A, 140W, IXGR32N60C, TO-247

**QD-000188-00**

MOSFET N-CHANNEL, 500V, 55A, 600W, IXFN55N50, SOT-227B

**QD-001340-LR**

LED red, T-1 3/4, voltage reference

**QD-000229-10**

Diode, 250V, 0.25A, , BAV21, DO-35, 50NS

QD-004148-DX

Diode, 75V, 0.075A, 1N4148, DO-35, 4ns



4.2 Parts lists

Because of the complexity of these amplifiers, many repairs will involve simply replacing defective modules with good ones. The table below lists the modules and major assemblies used in all three models for both 120- and 230-volt operation.

Assembly	PL 6.0 II		PL 6.0 ^{PFC}		PL 9.0 ^{PFC}	
	120V	230V	120V	230V	120V	230V
Chassis assembly	WP-000268-00	WP-000268-02	WP-000260-00	WP-000260-02	WP-000170-00	WP-000170-02
▲ Chassis assembly, rear	WP-000271-00		WP-000264-00		WP-000172-00	
▲▲ Output PCB assembly	WP-000179-00		WP-000179-00		WP-000179-00	
▲▲ Input PCB assembly	WP-000272-00		WP-000265-00		WP-000175-00	
▲▲▲ Input daughterboard			WP-000178-00		WP-000178-00	
▲ Audio channel module	WP-000276-00		WP-000276-00		WP-000182-00	
▲ Power supply assembly	WP-000266-00	WP-000266-02	WP-000262-00	WP-000262-02	WP-000173-00	WP-000180-00
▲▲ Power supply controller			WP-000263-00		WP-000174-00	
▲ Display board assembly	WP-000176-00		WP-000176-00		WP-000176-00	
▲ Line filter assembly	WP-000177-00	WP-000181-00	WP-000177-00	WP-000181-00	WP-000177-00	WP-000181-00
▲ Power cord assembly	WP-000042-00	WP-000022-00	WP-000042-00	WP-000135-00	WP-000042-00	WP-000135-00

For individual replacement parts, the lists on this and the following pages are organized by module or major assembly.

Chassis Assembly (QSC part #WP-000268-00)

Where used: PowerLight 6.0 II, 120 volts

QSC Part #	Description	Qty	Comments
CH-000078-00	CHASSIS, MAIN, , PL9.0,	1	
CH-000080-00	PAN, MAIN, , PL9.0,	1	
CH-000084-00	PARTITION, LINE FILTER, , PL9.0,	1	
CH-000086-00	RACK EAR, REAR, , PL9.0,	2	
CH-000087-00	RACK EAR, FRONT, , PL9.0,	2	
HW-060006-S0	STANDOFF, 0.250" HEX, #6-32, 1.186" L, ALUMINUM, MALE/FEMALE	4	
HW-060008-HW	STANDOFF, 0.250" HEX, #6-32, 0.500" L, ALUMINUM, MALE/FEMALE	3	
HW-060090-S0	STANDOFF, 0.250" HEX, #6-32, 0.563" L, ALUMINUM, FEMALE	5	
LB-000052-00	AGENCY, LISTING, , , UL/CUL	1	
LB-000391-00	PRODUCT, FACEPLATE, , PL6.0II,	1	
NW-000021-03	FLAT WASHER, 1.14", , ALUMINUM, BLACK ANODIZED	1	
NW-080001-NW	LOCK WASHER, #8, EXTERNAL TOOTH, , ZINC PLATE	1	
NW-080500-KP	KEPS NUT, #8-32, , ,	7	
NW-100710-NW	LOCK WASHER, #10, EXTERNAL TOOTH, , NICKEL PLATED	4	
NW-250705-04	HEX NUT, 1/4"-28, 7/16", STAINLESS STEEL,	4	
PL-000000-AF	BUMPER, ADHESIVE BACKED, 0.812" X 0.812", POLYURETHANE, BLACK,	2	
PL-000054-00	KNOB, , PLX, POLYPROPYLENE/SANTOPRENE, BLACK,	2	
PL-000101-00	INSULATOR, POWER SUPPLY, PL9.0, FISH PAPER, ,	1	
PL-000102-00	INSULATOR, AC LINE FILTER LEFT, PL9.0, FISH PAPER, ,	1	
PL-000103-00	INSULATOR, AC LINE FILTER RIGHT, PL9.0, FISH PAPER, ,	1	
PL-000104-00	INSULATOR, HIGH VOLTAGE, PL9.0, FISH PAPER, ,	1	
PL-000106-00	INSULATOR, HEAT SINK RIGHT, PL9.0, FISH PAPER, ,	2	

Chassis Assembly WP-000268-00 (continued)

QSC Part #	Description	Qty	Comments
PL-000107-00	INSULATOR, POWER SUPPLY UPPER, PL9.0, FISH PAPER, ,	2	
PL-000108-00	INSULATOR, HEAT SINK LEFT, PL9.0, FISH PAPER, ,	2	
PL-000109-00	INSULATOR, HEAT SINK CENTER, PL9.0, FISH PAPER, ,	2	
PL-000125-00	INSULATOR, POWER SUPPLY LOWER REAR, PL9.0, FISH PAPER, ,	1	
PL-000130-00	INSULATOR, PARTITION LOWER FRONT LEFT, PL9.0, FISH PAPER, ,	1	
PL-000130-01	INSULATOR, PARTITION LOWER FRONT RIGHT, PL9.0, FISH PAPER, ,	1	
PL-000131-00	INSULATOR, PARTITION LOWER REAR, PL9.0, FISH PAPER, ,	2	
PL-000137-00	INSULATOR, REAR BOTTOM, PL9.0, FISH PAPER, ,	2	
PL-000223-00	STUD INSULATOR, 0.187" ID, 0.5" L, VINYL, ,	4	
PL-000247-00	INSULATOR, POWER SUPPLY LOWER FRONT, PL 6.0II, FISH PAPER, ,	1	
SC-040155-HC	HEX, CAP, #4-40, 0.25" L, STAINLESS STEEL, SHOULDER	2	
SC-060042-PP	SC, PHILLIPS, PANHEAD SEMS INTERNAL TOOTH, #6-32, 0.25" L, BLK, ZINC,	13	
SC-060060-PS	PHILLIPS, SEMS EXTERNAL TOOTH, #6-32, 0.375" L, ZINC,	4	
SC-062120-PP	PHILLIPS, PANHEAD, #6, 0.75" L, ZINC, TYPE B	2	
SC-080051-PS	PHILLIPS, PANHEAD SEMS INTERNAL TOOTH, #8-32, 0.313" L, BLACK,	3	
SC-080051-PU	PHILLIPS, FLATHEAD UNDERCUT 100 DEGREE, #8-32, 0.313" L, BLACK, PATCH	10	
SC-082051-PL	PHILLIPS, PANHEAD SERATED BASE, #8, 0.313" L, BLACK,	21	
SC-100062-SC	PHILLIPS, PANHEAD, #10-32, 0.375" L, NICKEL,	4	
SW-000027-SW	AC SWITCH, DPST, 22A, 125VAC,	1	
WP-000042-00	POWER CORD ASSY, , PL 3 RU, ,	1	
WC-000123-00	WIRE ASSY, OUTPUT, 10 AWG, 1 CONDUCTOR, PL9.0, 15" L, BLACK	1	
WC-000123-01	WIRE ASSY, OUTPUT, 10 AWG, 1 CONDUCTOR, PL9.0, 20" L, BLACK	1	
WC-000124-00	WIRE ASSY, OUTPUT, 10 AWG, 1 CONDUCTOR, PL9.0, 15" L, WHITE	1	
WC-000124-01	WIRE ASSY, OUTPUT, 10 AWG, 1 CONDUCTOR, PL9.0, 20" L, WHITE	1	
WC-000243-00	CABLE ASSY, POWER SUPPLY TO AMP, 24 AWG, 8 CONDUCTOR, EVICTOR, 12" L,	2	
WP-000176-00	PCB ASSY, DISPLAY, PL9.0, ,	1	
WP-000177-00	PCB ASSY, LINE FILTER, PL9.0, 120V,	1	
WP-000266-00	PCB ASSY, POWER SUPPLY, EVICTOR, 120V,	2	
WP-000271-00	CHASSIS ASSY, REAR, PL6.0II, ,	1	
WP-000276-00	PCB ASSY, , PL 6.0 (NEW), ,	2	

Chassis Assembly (QSC part # WP-000268-02)

Where used: PowerLight 6.0 II, 230 volts

QSC Part #	Description	Qty	Comments
CH-000078-00	CHASSIS, MAIN, , PL9.0,	1	
CH-000080-00	PAN, MAIN, , PL9.0,	1	
CH-000084-00	PARTITION, LINE FILTER, , PL9.0,	1	
CH-000086-00	RACK EAR, REAR, , PL9.0,	2	
CH-000087-00	RACK EAR, FRONT, , PL9.0,	2	
CO-000099-00	JACK, IEC, 3 POS, FEMALE, SIDE FLANGE	1	
HW-060006-SO	STANDOFF, 0.250" HEX, #6-32, 1.186" L, ALUMINUM, MALE/FEMALE	4	
HW-060080-HW	STANDOFF, 0.250" HEX, #6-32, 0.500" L, ALUMINUM, MALE/FEMALE	3	
HW-060090-SO	STANDOFF, 0.250" HEX, #6-32, 0.563" L, ALUMINUM, FEMALE	5	
LB-000391-00	PRODUCT, FACEPLATE, , PL6.0II,	1	
NW-080001-NW	LOCK WASHER, #8, EXTERNAL TOOTH, , ZINC PLATE	1	
NW-080500-KP	KEPS NUT, #8-32, , ,	7	
NW-100710-NW	LOCK WASHER, #10, EXTERNAL TOOTH, , NICKEL PLATED	4	
NW-250705-04	HEX NUT, 1/4"-28, 7/16", STAINLESS STEEL,	4	
PL-000000-AF	BUMPER, ADHESIVE BACKED, 0.812" X 0.812", POLYURETHANE, BLACK,	1	
PL-000054-00	KNOB, , PLX, POLYPROPYLENE/SANTOPRENE, BLACK,	2	
PL-000055-00	PLUG, BINDING POST, , POLYPROPYLENE, RED,	1	
PL-000056-00	PLUG, BINDING POST, , POLYPROPYLENE, BLACK,	1	
PL-000101-00	INSULATOR, POWER SUPPLY, PL9.0, FISH PAPER, ,	1	
PL-000102-00	INSULATOR, AC LINE FILTER LEFT, PL9.0, FISH PAPER, ,	1	
PL-000103-00	INSULATOR, AC LINE FILTER RIGHT, PL9.0, FISH PAPER, ,	1	
PL-000104-00	INSULATOR, HIGH VOLTAGE, PL9.0, FISH PAPER, ,	1	
PL-000106-00	INSULATOR, HEAT SINK RIGHT, PL9.0, FISH PAPER, ,	2	
PL-000107-00	INSULATOR, POWER SUPPLY UPPER, PL9.0, FISH PAPER, ,	2	
PL-000108-00	INSULATOR, HEAT SINK LEFT, PL9.0, FISH PAPER, ,	2	
PL-000109-00	INSULATOR, HEAT SINK CENTER, PL9.0, FISH PAPER, ,	2	

Chassis Assembly WP-000268-02 (continued)

QSC Part #	Description	Qty	Comments
PL-000125-00	INSULATOR, POWER SUPPLY LOWER REAR, PL9.0, FISH PAPER, ,	1	
PL-000130-00	INSULATOR, PARTITION LOWER FRONT LEFT, PL9.0, FISH PAPER, ,	1	
PL-000130-01	INSULATOR, PARTITION LOWER FRONT RIGHT, PL9.0, FISH PAPER, ,	1	
PL-000131-00	INSULATOR, PARTITION LOWER REAR, PL9.0, FISH PAPER, ,	2	
PL-000223-00	STUD INSULATOR, 0.187" ID, 0.5" L, VINYL, ,	4	
PL-000247-00	INSULATOR, POWER SUPPLY LOWER FRONT, PL 6.0II, FISH PAPER, ,	1	
SC-060060-PS	PHILLIPS, SEMS EXTERNAL TOOTH, #6-32, 0.375" L, ZINC,	4	
PL-000137-00	INSULATOR, REAR BOTTOM, PL9.0, FISH PAPER, ,	2	
SC-040155-HC	HEX, CAP, #4-40, 0.25" L, STAINLESS STEEL, SHOULDER	2	
SC-060042-PP	SC, PHILLIPS, PANHEAD SEMS INTERNAL TOOTH, #6-32, 0.25" L, BLK, ZINC,	13	
SC-062120-PP	PHILLIPS, PANHEAD, #6, 0.75" L, ZINC, TYPE B	2	
SC-080051-PS	PHILLIPS, PANHEAD SEMS INTERNAL TOOTH, #8-32, 0.313" L, BLACK,	3	
SC-080051-PU	PHILLIPS, FLATHEAD UNDERCUT 100 DEGREE, #8-32, 0.313" L, BLACK, PATCH	10	
SC-082051-PL	PHILLIPS, PANHEAD SERATED BASE, #8, 0.313" L, BLACK,	21	
SC-083061-PU	PHILLIPS, FLATHEAD UNDERCUT, #8, 0.375" L, BLACK WAXED, TYPE B	1	
SC-100062-SC	PHILLIPS, PANHEAD, #10-32, 0.375" L, NICKEL,	4	
SW-000027-SW	AC SWITCH, DPST, 22A, 125VAC,	1	
WC-000022-00	AC CORD, IEC, 16 AWG, 3 CONDUCTOR, , 2.5 METERS, 250 VAC	1	
WC-000123-00	WIRE ASSY, OUTPUT, 10 AWG, 1 CONDUCTOR, PL9.0, 15" L, BLACK	1	
WC-000123-01	WIRE ASSY, OUTPUT, 10 AWG, 1 CONDUCTOR, PL9.0, 20" L, BLACK	1	
WC-000124-00	WIRE ASSY, OUTPUT, 10 AWG, 1 CONDUCTOR, PL9.0, 15" L, WHITE	1	
WC-000124-01	WIRE ASSY, OUTPUT, 10 AWG, 1 CONDUCTOR, PL9.0, 20" L, WHITE	1	
WC-000135-00	CABLE ASSY, IEC/AC FILTER, 12 AWG, 3 CONDUCTOR, PL9.0, 5" L,	1	
WC-000243-00	CABLE ASSY, POWER SUPPLY TO AMP, 24 AWG, 8 CONDUCTOR, EVICTOR, 12" L,	2	
WP-000176-00	PCB ASSY, DISPLAY, PL9.0, ,	1	
WP-000181-00	PCB ASSY, LINE FILTER, PL9.0, 230V,	1	
WP-000266-02	PCB ASSY, POWER SUPPLY, EVICTOR, 230V,	2	
WP-000271-00	CHASSIS ASSY, REAR, PL6.0II, ,	1	
WP-000276-00	PCB ASSY, , PL 6.0 (NEW), ,	2	

Chassis Assembly (QSC part # WP-000260-00)

Where used: PowerLight 6.0^{PFC}, 120 volts

QSCPart#	Description	Qty	Comments
CH-000078-00	CHASSIS, MAIN, , PL9.0,	1	
CH-000080-00	PAN, MAIN, , PL9.0,	1	
CH-000084-00	PARTITION, LINE FILTER, , PL9.0,	1	
CH-000086-00	RACK EAR, REAR, , PL9.0,	2	
CH-000087-00	RACK EAR, FRONT, , PL9.0,	2	
HW-060006-SO	STANDOFF, 0.250" HEX, #6-32, 1.186" L, ALUMINUM, MALE/FEMALE	4	
HW-060080-HW	STANDOFF, 0.250" HEX, #6-32, 0.500" L, ALUMINUM, MALE/FEMALE	3	
HW-060090-SO	STANDOFF, 0.250" HEX, #6-32, 0.563" L, ALUMINUM, FEMALE	5	
LB-000052-00	AGENCY, LISTING, , , UL/CUL	1	
LB-000278-00	PRODUCT, FACEPLATE, , PL6.0,	1	
NW-000021-03	FLAT WASHER, 1.14" , , ALUMINUM, BLACK ANODIZED	1	
NW-080001-NW	LOCK WASHER, #8, EXTERNAL TOOTH, , ZINC PLATE	1	
NW-080500-KP	KEPS NUT, #8-32, , ,	7	
NW-100710-NW	LOCK WASHER, #10, EXTERNAL TOOTH, , NICKEL PLATED	4	
NW-250705-04	HEX NUT, 1/4"-28, 7/16", STAINLESS STEEL,	4	
PL-000000-AF	BUMPER, ADHESIVE BACKED, 0.812" X 0.812", POLYURETHANE, BLACK,	2	
PL-000054-00	KNOB, , PLX, POLYPROPYLENE/SANTOPRENE, BLACK,	2	
PL-000101-00	INSULATOR, POWER SUPPLY, PL9.0, FISH PAPER, ,	1	
PL-000102-00	INSULATOR, AC LINE FILTER LEFT, PL9.0, FISH PAPER, ,	1	
PL-000103-00	INSULATOR, AC LINE FILTER RIGHT, PL9.0, FISH PAPER, ,	1	
PL-000104-00	INSULATOR, HIGH VOLTAGE, PL9.0, FISH PAPER, ,	1	
PL-000106-00	INSULATOR, HEAT SINK RIGHT, PL9.0, FISH PAPER, ,	2	
PL-000107-00	INSULATOR, POWER SUPPLY UPPER, PL9.0, FISH PAPER, ,	2	
PL-000108-00	INSULATOR, HEAT SINK LEFT, PL9.0, FISH PAPER, ,	2	
PL-000109-00	INSULATOR, HEAT SINK CENTER, PL9.0, FISH PAPER, ,	2	
PL-000124-00	INSULATOR, POWER SUPPLY LOWER FRONT, PL9.0, FISH PAPER, ,	1	
PL-000125-00	INSULATOR, POWER SUPPLY LOWER REAR, PL9.0, FISH PAPER, ,	1	

Chassis Assembly WP-000260-00 (continued)

QSC Part #	Description	Qty	Comments
PL-000130-00	INSULATOR, PARTITION LOWER FRONT LEFT, PL9.0, FISH PAPER, ,	1	
PL-000130-01	INSULATOR, PARTITION LOWER FRONT RIGHT, PL9.0, FISH PAPER, ,	1	
PL-000131-00	INSULATOR, PARTITION LOWER REAR, PL9.0, FISH PAPER, ,	2	
PL-000137-00	INSULATOR, REAR BOTTOM, PL9.0, FISH PAPER, ,	2	
SC-060060-PS	PHILLIPS, SEMS EXTERNAL TOOTH, #6-32, 0.375" L, ZINC,	4	
SC-040155-HC	HEX, CAP, #4-40, 0.25" L, STAINLESS STEEL, SHOULDER	2	
SC-060042-PP	SC, PHILLIPS, PANHEAD SEMS INTERNAL TOOTH, #6-32, 0.25" L, BLK, ZINC,	13	
SC-062120-PP	PHILLIPS, PANHEAD, #6, 0.75" L, ZINC, TYPE B	2	
SC-080051-PS	PHILLIPS, PANHEAD SEMS INTERNAL TOOTH, #8-32, 0.313" L, BLACK,	3	
SC-080051-PU	PHILLIPS, FLATHEAD UNDERCUT 100 DEGREE, #8-32, 0.313" L, BLACK, PATCH	10	
SC-082051-PL	PHILLIPS, PANHEAD SERATED BASE, #8, 0.313" L, BLACK,	21	
SC-100062-SC	PHILLIPS, PANHEAD, #10-32, 0.375" L, NICKEL,	4	
SW-000027-SW	AC SWITCH, DPST, 22A, 125VAC,	1	
WC-000123-00	WIRE ASSY, OUTPUT, 10 AWG, 1 CONDUCTOR, PL9.0, 15" L, BLACK	1	
WC-000123-01	WIRE ASSY, OUTPUT, 10 AWG, 1 CONDUCTOR, PL9.0, 20" L, BLACK	1	
WC-000124-00	WIRE ASSY, OUTPUT, 10 AWG, 1 CONDUCTOR, PL9.0, 15" L, WHITE	1	
WC-000124-01	WIRE ASSY, OUTPUT, 10 AWG, 1 CONDUCTOR, PL9.0, 20" L, WHITE	1	
WP-000042-00	POWER CORD ASSY, , PL 3 RU, ,	1	
WP-000176-00	PCB ASSY, DISPLAY, PL9.0, ,	1	
WP-000177-00	PCB ASSY, LINE FILTER, PL9.0, 120V,	1	
WP-000262-00	PCB ASSY, POWER SUPPLY, PL6.0, 120V,	2	
WP-000264-00	CHASSIS ASSY, REAR, PL6.0, ,	1	
WP-000276-00	PCB ASSY, , PL 6.0 (NEW), ,	2	

Chassis Assembly (QSC part # WP-000260-02)

Where used: PowerLight 6.0^{PFC}, 230 volts

QSC Part #	Description	Qty	Comments
CH-000078-00	CHASSIS, MAIN, , PL9.0,	1	
CH-000080-00	PAN, MAIN, , PL9.0,	1	
CH-000084-00	PARTITION, LINE FILTER, , PL9.0,	1	
CH-000086-00	RACK EAR, REAR, , PL9.0,	2	
CH-000087-00	RACK EAR, FRONT, , PL9.0,	2	
CO-000099-00	JACK, IEC, 3 POS, FEMALE, SIDE FLANGE	1	
HW-060006-SO	STANDOFF, 0.250" HEX, #6-32, 1.186" L, ALUMINUM, MALE/FEMALE	4	
HW-060080-HW	STANDOFF, 0.250" HEX, #6-32, 0.500" L, ALUMINUM, MALE/FEMALE	3	
HW-060090-SO	STANDOFF, 0.250" HEX, #6-32, 0.563" L, ALUMINUM, FEMALE	5	
LB-000272-01	AGENCY, , , CE	1	
LB-000278-00	PRODUCT, FACEPLATE, , PL6.0,	1	
NW-080001-NW	LOCK WASHER, #8, EXTERNAL TOOTH, , ZINC PLATE	1	
NW-080500-KP	KEPS NUT, #8-32, , ,	7	
NW-100710-NW	LOCK WASHER, #10, EXTERNAL TOOTH, , NICKEL PLATED	4	
PL-000000-AF	BUMPER, ADHESIVE BACKED, 0.812" X 0.812", POLYURETHANE, BLACK,	2	
PL-000054-00	KNOB, , PLX, POLYPROPYLENE/SANTOPRENE, BLACK,	2	
PL-000101-00	INSULATOR, POWER SUPPLY, PL9.0, FISH PAPER, ,	1	
PL-000102-00	INSULATOR, AC LINE FILTER LEFT, PL9.0, FISH PAPER, ,	1	
PL-000103-00	INSULATOR, AC LINE FILTER RIGHT, PL9.0, FISH PAPER, ,	1	
PL-000104-00	INSULATOR, HIGH VOLTAGE, PL9.0, FISH PAPER, ,	1	
PL-000106-00	INSULATOR, HEAT SINK RIGHT, PL9.0, FISH PAPER, ,	2	
PL-000107-00	INSULATOR, POWER SUPPLY UPPER, PL9.0, FISH PAPER, ,	2	
PL-000108-00	INSULATOR, HEAT SINK LEFT, PL9.0, FISH PAPER, ,	2	
PL-000109-00	INSULATOR, HEAT SINK CENTER, PL9.0, FISH PAPER, ,	2	
PL-000124-00	INSULATOR, POWER SUPPLY LOWER FRONT, PL9.0, FISH PAPER, ,	1	
PL-000125-00	INSULATOR, POWER SUPPLY LOWER REAR, PL9.0, FISH PAPER, ,	1	
PL-000130-00	INSULATOR, PARTITION LOWER FRONT LEFT, PL9.0, FISH PAPER, ,	1	
PL-000130-01	INSULATOR, PARTITION LOWER FRONT RIGHT, PL9.0, FISH PAPER, ,	1	
PL-000131-00	INSULATOR, PARTITION LOWER REAR, PL9.0, FISH PAPER, ,	2	
SC-060060-PS	PHILLIPS, SEMS EXTERNAL TOOTH, #6-32, 0.375" L, ZINC,	4	
NW-250705-04	HEX NUT, 1/4"-28, 7/16", STAINLESS STEEL,	4	
PL-000055-00	PLUG, BINDING POST, , POLYPROPYLENE, RED,	2	
PL-000056-00	PLUG, BINDING POST, , POLYPROPYLENE, BLACK,	2	

Chassis Assembly WP-000260-02 (continued)

QSC Part #	Description	Qty	Comments	Ref erence
PL-000137-00	INSULATOR, REAR BOTTOM, PL9.0, FISH PAPER, ,	2		
SC-040155-HC	HEX, CAP, #4-40, 0.25" L, STAINLESS STEEL, SHOULDER	2		
SC-060042-PP	SC, PHILLIPS, PANHEAD SEMS INTERNAL TOOTH, #6-32, 0.25" L, BLK, ZINC,	13		
SC-062120-PP	PHILLIPS, PANHEAD, #6, 0.75" L, ZINC, TYPE B	2		
SC-080051-PS	PHILLIPS, PANHEAD SEMS INTERNAL TOOTH, #8-32, 0.313" L, BLACK,	3		
SC-080051-PU	PHILLIPS, FLATHEAD UNDERCUT 100 DEGREE, #8-32, 0.313" L, BLACK, PATCH	10		
SC-082051-PL	PHILLIPS, PANHEAD SERATED BASE, #8, 0.313" L, BLACK,	21		
SC-083061-PU	PHILLIPS, FLATHEAD UNDERCUT, #8, 0.375" L, BLACK WAXED, TYPE B	2		
SC-100062-SC	PHILLIPS, PANHEAD, #10-32, 0.375" L, NICKEL,	4		
SW-000027-SW	AC SWITCH, DPST, 22A, 125VAC,	1		
WC-000022-00	AC CORD, IEC, 16 AWG, 3 CONDUCTOR, , 2.5 METERS, 250 VAC	1		
WC-000123-00	WIRE ASSY, OUTPUT, 10 AWG, 1 CONDUCTOR, PL9.0, 15" L, BLACK	1		
WC-000123-01	WIRE ASSY, OUTPUT, 10 AWG, 1 CONDUCTOR, PL9.0, 20" L, BLACK	1		
WC-000124-00	WIRE ASSY, OUTPUT, 10 AWG, 1 CONDUCTOR, PL9.0, 15" L, WHITE	1		
WC-000124-01	WIRE ASSY, OUTPUT, 10 AWG, 1 CONDUCTOR, PL9.0, 20" L, WHITE	1		
WC-000135-00	CABLE ASSY, IEC/AC FILTER, 12 AWG, 3 CONDUCTOR, PL9.0, 5" L,	1		
WP-000176-00	PCB ASSY, DISPLAY, PL9.0, ,	1		
WP-000181-00	PCB ASSY, LINE FILTER, PL9.0, 230V,	1		
WP-000262-02	PCB ASSY, POWER SUPPLY, PL6.0, 230V,	2		
WP-000264-00	CHASSIS ASSY, REAR, PL6.0, ,	1		
WP-000276-00	PCB ASSY, , PL 6.0 (NEW), ,	2		

Chassis Assembly (QSC part # WP-000170-00)

Where used: PowerLight 9.0^{PFC}, 120 volts

QSC Part #	Description	Qty	Comments
CH-000078-00	CHASSIS, MAIN, , PL9.0,	1	
CH-000080-00	PAN, MAIN, , PL9.0,	1	
CH-000084-00	PARTITION, LINE FILTER, , PL9.0,	1	
CH-000086-00	RACK EAR, REAR, , PL9.0,	2	
CH-000087-00	RACK EAR, FRONT, , PL9.0,	2	
HW-060006-S0	STANDOFF, 0.250" HEX, #6-32, 1.186" L, ALUMINUM, MALE/FEMALE	4	
HW-060080-HW	STANDOFF, 0.250" HEX, #6-32, 0.500" L, ALUMINUM, MALE/FEMALE	3	
HW-060090-S0	STANDOFF, 0.250" HEX, #6-32, 0.563" L, ALUMINUM, FEMALE	5	
LB-000052-00	AGENCY, LISTING, , , UL/CUL	1	
LB-000217-00	PRODUCT, FACEPLATE, , PL9.0,	1	
NW-000021-03	FLAT WASHER, 1.14", , ALUMINUM, BLACK ANODIZED	1	
NW-080001-NW	LOCK WASHER, #8, EXTERNAL TOOTH, , ZINC PLATE	1	
NW-080500-KP	KEPS NUT, #8-32, , ,	7	
NW-100710-NW	LOCK WASHER, #10, EXTERNAL TOOTH, , NICKEL PLATED	4	
NW-250705-04	HEX NUT, 1/4"-28, 7/16", STAINLESS STEEL,	4	
PL-000000-AF	BUMPER, ADHESIVE BACKED, 0.812" X 0.812", POLYURETHANE, BLACK,	2	
PL-000054-00	KNOB, , PLX, POLYPROPYLENE/SANTOPRENE, BLACK,	2	
PL-000101-00	INSULATOR, POWER SUPPLY, PL9.0, FISH PAPER, ,	1	
PL-000102-00	INSULATOR, AC LINE FILTER LEFT, PL9.0, FISH PAPER, ,	1	
PL-000103-00	INSULATOR, AC LINE FILTER RIGHT, PL9.0, FISH PAPER, ,	1	
PL-000104-00	INSULATOR, HIGH VOLTAGE, PL9.0, FISH PAPER, ,	1	
PL-000106-00	INSULATOR, HEAT SINK RIGHT, PL9.0, FISH PAPER, ,	2	
PL-000107-00	INSULATOR, POWER SUPPLY UPPER, PL9.0, FISH PAPER, ,	2	
PL-000108-00	INSULATOR, HEAT SINK LEFT, PL9.0, FISH PAPER, ,	2	
PL-000109-00	INSULATOR, HEAT SINK CENTER, PL9.0, FISH PAPER, ,	2	
PL-000124-00	INSULATOR, POWER SUPPLY LOWER FRONT, PL9.0, FISH PAPER, ,	1	
PL-000125-00	INSULATOR, POWER SUPPLY LOWER REAR, PL9.0, FISH PAPER, ,	1	
PL-000130-00	INSULATOR, PARTITION LOWER FRONT LEFT, PL9.0, FISH PAPER, ,	1	
PL-000130-01	INSULATOR, PARTITION LOWER FRONT RIGHT, PL9.0, FISH PAPER, ,	1	
PL-000131-00	INSULATOR, PARTITION LOWER REAR, PL9.0, FISH PAPER, ,	2	
PL-000137-00	INSULATOR, REAR BOTTOM, PL9.0, FISH PAPER, ,	2	
SC-040155-HC	HEX, CAP, #4-40, 0.25" L, STAINLESS STEEL, SHOULDER	2	
SC-060042-PP	SC, PHILLIPS, PANHEAD SEMS INTERNAL TOOTH, #6-32, 0.25" L, BLK, ZINC,	13	
SC-060060-PS	PHILLIPS, SEMS EXTERNAL TOOTH, #6-32, 0.375" L, ZINC,	4	
SC-062120-PP	PHILLIPS, PANHEAD, #6, 0.75" L, ZINC, TYPE B	2	

Chassis Assembly WP-000170-00 (continued)

QSC Part #	Description	Qty	Comments
SC-080051-PS	PHILLIPS, PANHEAD SEMS INTERNAL TOOTH, #8-32, 0.313" L, BLACK,	3	
SC-080051-PU	PHILLIPS, FLATHEAD UNDERCUT 100 DEGREE, #8-32, 0.313" L, BLACK, PATCH	10	
SC-082051-PL	PHILLIPS, PANHEAD SERATED BASE, #8, 0.313" L, BLACK,	21	
SC-100062-SC	PHILLIPS, PANHEAD, #10-32, 0.375" L, NICKEL,	4	
SW-000027-SW	AC SWITCH, DPST, 22A, 125VAC,	1	
WC-000123-00	WIRE ASSY, OUTPUT, 10 AWG, 1 CONDUCTOR, PL9.0, 15" L, BLACK	1	
WC-000123-01	WIRE ASSY, OUTPUT, 10 AWG, 1 CONDUCTOR, PL9.0, 20" L, BLACK	1	
WC-000124-00	WIRE ASSY, OUTPUT, 10 AWG, 1 CONDUCTOR, PL9.0, 15" L, WHITE	1	
WC-000124-01	WIRE ASSY, OUTPUT, 10 AWG, 1 CONDUCTOR, PL9.0, 20" L, WHITE	1	
WP-000042-00	POWER CORD ASSY, , PL 3 RU, ,	1	
WP-000172-00	CHASSIS ASSY, REAR, PL9.0, ,	1	
WP-000173-00	PCB ASSY, POWER SUPPLY, PL9.0, 120V,	2	
WP-000176-00	PCB ASSY, DISPLAY, PL9.0, ,	1	
WP-000177-00	PCB ASSY, LINE FILTER, PL9.0, 120V,	1	
WP-000182-00	PCB ASSY, , PL 9.0 (NEW), ,	2	

Chassis Assembly (QSC part # WP-000170-02)

Where used: PowerLight 9.0^{PFC}, 230 volts

QSC Part #	Description	Qty	Comments
CH-000078-00	CHASSIS, MAIN, , PL9.0,	1	
CH-000080-00	PAN, MAIN, , PL9.0,	1	
CH-000084-00	PARTITION, LINE FILTER, , PL9.0,	1	
CH-000086-00	RACK EAR, REAR, , PL9.0,	2	
CH-000087-00	RACK EAR, FRONT, , PL9.0,	2	
CO-000099-00	JACK, IEC, 3 POS, FEMALE, SIDE FLANGE	1	
HW-060006-SO	STANDOFF, 0.250" HEX, #6-32, 1.186" L, ALUMINUM, MALE/FEMALE	4	
HW-060080-HW	STANDOFF, 0.250" HEX, #6-32, 0.500" L, ALUMINUM, MALE/FEMALE	3	
HW-060090-SO	STANDOFF, 0.250" HEX, #6-32, 0.563" L, ALUMINUM, FEMALE	5	
LB-000217-00	PRODUCT, FACEPLATE, , PL9.0,	1	
LB-000272-00	AGENCY, VOLTAGE, , , CE	1	
NW-080001-NW	LOCK WASHER, #8, EXTERNAL TOOTH, , ZINC PLATE	1	
NW-080500-KP	KEPS NUT, #8-32, , ,	7	
NW-100710-NW	LOCK WASHER, #10, EXTERNAL TOOTH, , NICKEL PLATED	4	
NW-250705-04	HEX NUT, 1/4"-28, 7/16", STAINLESS STEEL,	4	
PL-000000-AF	BUMPER, ADHESIVE BACKED, 0.812" X 0.812", POLYURETHANE, BLACK,	2	
PL-000054-00	KNOB, , PLX, POLYPROPYLENE/SANTOPRENE, BLACK,	2	
PL-000055-00	PLUG, BINDING POST, , POLYPROPYLENE, RED,	2	
PL-000056-00	PLUG, BINDING POST, , POLYPROPYLENE, BLACK,	2	
PL-000101-00	INSULATOR, POWER SUPPLY, PL9.0, FISH PAPER, ,	1	
PL-000102-00	INSULATOR, AC LINE FILTER LEFT, PL9.0, FISH PAPER, ,	1	
PL-000103-00	INSULATOR, AC LINE FILTER RIGHT, PL9.0, FISH PAPER, ,	1	
PL-000104-00	INSULATOR, HIGH VOLTAGE, PL9.0, FISH PAPER, ,	1	
PL-000106-00	INSULATOR, HEAT SINK RIGHT, PL9.0, FISH PAPER, ,	2	
PL-000107-00	INSULATOR, POWER SUPPLY UPPER, PL9.0, FISH PAPER, ,	2	
PL-000108-00	INSULATOR, HEAT SINK LEFT, PL9.0, FISH PAPER, ,	2	
PL-000109-00	INSULATOR, HEAT SINK CENTER, PL9.0, FISH PAPER, ,	2	
PL-000124-00	INSULATOR, POWER SUPPLY LOWER FRONT, PL9.0, FISH PAPER, ,	1	
PL-000125-00	INSULATOR, POWER SUPPLY LOWER REAR, PL9.0, FISH PAPER, ,	1	
PL-000130-00	INSULATOR, PARTITION LOWER FRONT LEFT, PL9.0, FISH PAPER, ,	1	
PL-000130-01	INSULATOR, PARTITION LOWER FRONT RIGHT, PL9.0, FISH PAPER, ,	1	
PL-000131-00	INSULATOR, PARTITION LOWER REAR, PL9.0, FISH PAPER, ,	2	
PL-000137-00	INSULATOR, REAR BOTTOM, PL9.0, FISH PAPER, ,	2	
SC-060060-PS	PHILLIPS, SEMS EXTERNAL TOOTH, #6-32, 0.375" L, ZINC,	4	
SC-040155-HC	HEX, CAP, #4-40, 0.25" L, STAINLESS STEEL, SHOULDER	2	
SC-060042-PP	SC, PHILLIPS, PANHEAD SEMS INTERNAL TOOTH, #6-32, 0.25" L, BLK, ZINC,	13	
SC-062120-PP	PHILLIPS, PANHEAD, #6, 0.75" L, ZINC, TYPE B	2	
SC-080051-PS	PHILLIPS, PANHEAD SEMS INTERNAL TOOTH, #8-32, 0.313" L, BLACK,	3	
SC-080051-PU	PHILLIPS, FLATHEAD UNDERCUT 100 DEGREE, #8-32, 0.313" L, BLACK, PATCH	10	

Chassis Assembly WP-000170-02 (continued)

QSC Part #	Description	Qty	Comments	Ref erence
SC-082051-PL	PHILLIPS, PANHEAD SERATED BASE, #8, 0.313" L, BLACK,	21		
SC-083061-PU	PHILLIPS, FLATHEAD UNDERCUT, #8, 0.375" L, BLACK WAXED, TYPE B	2		
SC-100062-SC	PHILLIPS, PANHEAD, #10-32, 0.375" L, NICKEL,	4		
SW-000027-SW	AC SWITCH, DPST, 22A, 125VAC,	1		
WC-000022-00	AC CORD, IEC, 16 AWG, 3 CONDUCTOR, , 2.5 METERS, 250 VAC	1		
WC-000123-00	WIRE ASSY, OUTPUT, 10 AWG, 1 CONDUCTOR, PL9.0, 15" L, BLACK	1		
WC-000123-01	WIRE ASSY, OUTPUT, 10 AWG, 1 CONDUCTOR, PL9.0, 20" L, BLACK	1		
WC-000124-00	WIRE ASSY, OUTPUT, 10 AWG, 1 CONDUCTOR, PL9.0, 15" L, WHITE	1		
WC-000124-01	WIRE ASSY, OUTPUT, 10 AWG, 1 CONDUCTOR, PL9.0, 20" L, WHITE	1		
WC-000135-00	CABLE ASSY, IEC/AC FILTER, 12 AWG, 3 CONDUCTOR, PL9.0, 5" L,	1		
WP-000172-00	CHASSIS ASSY, REAR, PL9.0, ,	1		
WP-000176-00	PCB ASSY, DISPLAY, PL9.0, ,	1		
WP-000180-00	PCB ASSY, POWER SUPPLY, PL9.0, 230V,	2		
WP-000181-00	PCB ASSY, LINE FILTER, PL9.0, 230V,	1		
WP-000182-00	PCB ASSY, , PL 9.0 (NEW), ,	2		

Chassis Assembly, Rear (QSC part # WP-000271-00)

Where used: PowerLight 6.0 II, 120 and 230 volts

This is a subassembly of Chassis Assembly WP-000268-00 or WP-000268-02; one per amplifier.

QSC Part #	Description	Qty	Comments
CH-000108-00	CHASSIS, REAR, , PL9.0,	1	
CO-000146-00	BINDING POST, SINGLE, 1 POS, FEMALE, 60A BLACK	2	
CO-000147-00	BINDING POST, SINGLE, 1 POS, FEMALE, 60A RED	2	
LB-000216-00	WARNING, SHOCK CAUTION, , PL9.0, FCC CLASS A	1	
LB-000218-00	PRODUCT, REAR, , PL9.0,	1	
MS-000105-00	FAN, 24VDC, 3.62", ASSY,	4	
NW-080002-00	FLAT WASHER, #8, , STAINLESS STEEL, BLACK	16	
NW-500020-03	FLAT WASHER, 0.265", , , ZINC PLATED	8	
PL-000045-PL	RIVET, SCREW HEAD, 0.410" PANEL, PLASTIC, BLACK,	16	
SC-030045-PB	PHILLIPS, BINDERHEAD, #3-48, 0.25" L, BLACK,	4	
SC-040041-PP	PHILLIPS, PANHEAD, #4-40, 0.25" L, BLACK,	2	
SC-060060-PS	PHILLIPS, SEMS EXTERNAL TOOTH, #6-32, 0.375" L, ZINC,	2	
WP-000179-00	PCB ASSY, OUTPUT, PL9.0, ,	1	
WP-000272-00	PCB ASSY, INPUT, PL6.0II, ,	1	

Chassis Assembly, Rear (QSC part # WP-000264-00)

Where used: PowerLight 6.0^{PFC}, 120 and 230 volts

This is a subassembly of Chassis Assembly WP-000260-00 or WP-000260-02; one per amplifier.

QSC Part #	Description	Qty	Comments
CH-000108-00	CHASSIS, REAR, , PL9.0,	1	
CO-000146-00	BINDING POST, SINGLE, 1 POS, FEMALE, 60A BLACK	2	
CO-000147-00	BINDING POST, SINGLE, 1 POS, FEMALE, 60A RED	2	
LB-000216-00	WARNING, SHOCK CAUTION, , PL9.0, FCC CLASS A	1	
LB-000218-00	PRODUCT, REAR, , PL9.0,	1	
MS-000105-00	FAN, 24VDC, 3.62", ASSY,	4	
NW-080002-00	FLAT WASHER, #8, , STAINLESS STEEL, BLACK	16	
NW-500020-03	FLAT WASHER, 0.265", , , ZINC PLATED	8	
PL-000045-PL	RIVET, SCREW HEAD, 0.410" PANEL, PLASTIC, BLACK,	16	
SC-030045-PB	PHILLIPS, BINDERHEAD, #3-48, 0.25" L, BLACK,	4	
SC-040041-PP	PHILLIPS, PANHEAD, #4-40, 0.25" L, BLACK,	2	
SC-060060-PS	PHILLIPS, SEMS EXTERNAL TOOTH, #6-32, 0.375" L, ZINC,	2	
WP-000179-00	PCB ASSY, OUTPUT, PL9.0, ,	1	
WP-000265-00	PCB ASSY, INPUT, PL6.0, ,	1	

Chassis Assembly, Rear (QSC Part # WP-000172-00)

Where used: PL9.0^{PFC}, 120 and 230 volts.

This is a subassembly of Chassis Assembly WP-000170-00 or WP-000170-02; one per amplifier.

QSC Part #	Description	Qty	Comments
CO-000146-00	BINDING POST, SINGLE, 1 POS, FEMALE, 60A BLACK	2	
CO-000147-00	BINDING POST, SINGLE, 1 POS, FEMALE, 60A RED	2	
CH-000108-00	CHASSIS, REAR, , PL9.0,	1	
LB-000216-00	WARNING, SHOCK CAUTION, , PL9.0, FCC CLASS A	1	
LB-000218-00	PRODUCT, REAR, , PL9.0,	1	
MS-000105-00	FAN, 24VDC, 3.62", ASSY,	4	
NW-000002-00	FLAT WASHER, #8, , STAINLESS STEEL, BLACK	16	
NW-500020-03	FLAT WASHER, 0.265", , , ZINC PLATED	8	
PL-000045-PL	RIVET, SCREW HEAD, 0.410" PANEL, PLASTIC, BLACK,	16	
SC-030045-PB	PHILLIPS, BINDERHEAD, #3-48, 0.25" L, BLACK,	4	
SC-040041-PP	PHILLIPS, PANHEAD, #4-40, 0.25" L, BLACK,	2	
SC-060060-PS	PHILLIPS, SEMS EXTERNAL TOOTH, #6-32, 0.375" L, ZINC,	2	
WP-000175-00	PCB ASSY, INPUT, PL9.0, ,	1	
WP-000179-00	PCB ASSY, OUTPUT, PL9.0, ,	1	

Output PCB Assembly (QSC part # WP-000179-00)

Where used: All models, 120 or 230 volts.

This is a subassembly of the Chassis Assembly, Rear (WP-000271-00, WP-000264-00, or WP-000172-00); one per amplifier.

QSC Part #	Description	Qty	Comments
CA-410009-00	0.1UF, 5 PCNT, 250V, FILM, WRAPPED,	2	USE .050 SPACER
CO-000036-CO	JACK, SPEAKON, 4 POS, FEMALE,	2	
PC-000179-00	OUTPUT, PL9.0, ,	1	APPLY MASKING DOTS 8 PLACES FOR BINDING POST, AND E1

Input PCB Assembly (QSC part # WP-000272-00)

Where used: PowerLight 6.0 II, 120 and 230 volts.

This is a subassembly of the Chassis Assembly, Rear (WP-000271-00); one per amplifier.

QSC Part #	Description	Qty	Comments	Reference
CA-122001-10	220PF, 10 PCNT, 100V, CERAMIC NPO, DISC,	4		C300, C302, C400, C402
CA-410004-10	0.1UF, 20 PCNT, 50V, CERAMIC Z5U, DIPPED,	4		C301, C303, C401, C403
CO-000168-00	XLR, COMBO, 3 POS, FEMALE, VERTICAL	2		J301, J401
IC-000072-OP	OPAMP, DUAL, TL072, ,	2		U300, U400
PC-000175-00	INPUT, PL9.0, ,	1		
QD-000062-10	TRANSISTOR NPN, 40V, 0.2A, 1.5W, 2N3904, TO-92,	1		Q1
QD-001340-LR	LED RED, , , , T-1 3/4, VOLTAGE REFERENCE	2	FLUSH TO THE PCB, CUT & CLINCH BOTH LEADS, AVOID TRACES	LD1, LD2
QD-004148-DX	DIODE, 75V, 0.075A, , 1N4148, DO-35, 4NS	2		D1, D2
RE-003305-BC	33, 5 PCNT, 1/4W, CARBON FILM, ,	1		R10
RE-004751-BM	47.5, 1 PCNT, 1/4W, METAL FILM, ,	3		R13, R306, R406
RE-110001-10	1.00K, 1 PCNT, 1/3W, METAL FILM, ,	8		R300-R303, R400-R403
RE-134802-10	3.48K, 1 PCNT, 1/8W, METAL FILM, ,	4		R1-R3, R22
RE-151100-10	5.11K, 1/4W, 1 PCNT, METAL FILM, ,	1		R12
RE-190901-BM	9.09K, 1 PCNT, 1/4W, METAL FILM, ,	5		R4, R304, R305, R404, R405
RE-220001-10	20.0K, 1 PCNT, 1/3W, METAL FILM, ,	2		R20, R23
SW-000043-00	SWITCH, 4P3T, SLIDE, PCB MOUNT	1		SW1
WC-000128-00	RIBBON CABLE ASSY, , 28 AWG, 16 CONDUCTOR, PL9.0, 8.75" L,	2		
WP-000178-00	PCB ASSY, INPUT DAUGHTER, PL6.0/PL9.0, ,	1		

Input PCB Assembly (QSC part # WP-000265-00)

Where used: PowerLight 6.0^{PFC}, 120 and 230 volts.

This is a subassembly of the Chassis Assembly, Rear (WP-000264-00); one per amplifier.

QSC Part #	Description	Qty	Comments	Reference
CA-122001-10	220PF, 10 PCNT, 100V, CERAMIC NPO, DISC,	4		C300, C302, C400, C402
CA-410004-10	0.1UF, 20 PCNT, 50V, CERAMIC Z5U, DIPPED,	4		C301, C303, C401, C403
CO-000168-00	XLR, COMBO, 3 POS, FEMALE, VERTICAL	2		J301, J401
IC-000072-0P	OPAMP, DUAL, TL072, ,	2		U300, U400
PC-000175-00	INPUT, PL9.0, ,	1		
QD-000062-10	TRANSISTOR NPN, 40V, 0.2A, 1.5W, 2N3904, TO-92,	1		Q1
QD-001340-LR	LED RED, , , , T-1 3/4, VOLTAGE REFERENCE	2	FLUSH TO THE PCB, CUT & CLINCH BOTH LEADS, AVOID TRACES	LD1, LD2
QD-004148-DX	DIODE, 75V, 0.075A, , 1N4148, DO-35, 4NS	2		D1, D2
RE-003305-BC	33, 5 PCNT, 1/4W, CARBON FILM, ,	1		R10
RE-004751-BM	47.5, 1 PCNT, 1/4W, METAL FILM, ,	3		R13, R306, R406
RE-110001-10	1.00K, 1 PCNT, 1/3W, METAL FILM, ,	8		R300-R303, R400-R403
RE-122601-10	2.26K, 1 PCNT, 1/4W, METAL FILM, ,	1		R12
RE-134802-10	3.48K, 1 PCNT, 1/8W, METAL FILM, ,	4		R1, R2, R3, R22
RE-190901-BM	9.09K, 1 PCNT, 1/4W, METAL FILM, ,	5		R4, R304, R305, R404, R405
RE-220001-10	20.0K, 1 PCNT, 1/3W, METAL FILM, ,	2		R20, R23
SW-000043-00	SWITCH, 4P3T, SLIDE, PCB MOUNT	1		SW1
WC-000128-00	RIBBON CABLE ASSY, , 28 AWG, 16 CONDUCTOR, PL9.0, 8.75" L,	2		
WP-000178-00	PCB ASSY, INPUT DAUGHTER, PL6.0/PL9.0, ,	1		

Input PCB Assembly (QSC part # WP-000175-00)

Where used: PowerLight 6.0^{PFC}, 120 and 230 volts.

This is a subassembly of the Chassis Assembly, Rear (WP-000179-00); one per amplifier.

QSC Part #	Description	Qty	Comments	Reference
CA-122001-10	220PF, 10 PCNT, 100V, CERAMIC NPO, DISC,	4		C300, C302, C400, C402
CA-410004-10	0.1UF, 20 PCNT, 50V, CERAMIC Z5U, DIPPED,	4		C301, C303, C401, C403
CO-000168-00	XLR, COMBO, 3 POS, FEMALE, VERTICAL	2		J301, J401
IC-000072-0P	OPAMP, DUAL, TL072, ,	2		U300, U400
PC-000175-00	INPUT, PL9.0, ,	1		
QD-000062-10	TRANSISTOR NPN, 40V, 0.2A, 1.5W, 2N3904, TO-92,	1		Q1
QD-001340-LR	LED RED, , , , T-1 3/4, VOLTAGE REFERENCE	2	FLUSH TO THE PCB, CUT & CLINCH BOTH LEADS, AVOID TRACES	LD1, LD2
QD-004148-DX	DIODE, 75V, 0.075A, , 1N4148, DO-35, 4NS	2		D1, D2
RE-003305-BC	33, 5 PCNT, 1/4W, CARBON FILM, ,	1		R10
RE-004751-BM	47.5, 1 PCNT, 1/4W, METAL FILM, ,	3		R13, R306, R406
RE-084501-10	845, 1 PCNT, 1/4W, METAL FILM, ,	1		R12
RE-110001-10	1.00K, 1 PCNT, 1/3W, METAL FILM, ,	8		R300-R303, R400-R403
RE-134802-10	3.48K, 1 PCNT, 1/8W, METAL FILM, ,	4		R1, R2, R3, R22
RE-190901-BM	9.09K, 1 PCNT, 1/4W, METAL FILM, ,	5		R4, R304, R305, R404, R405
RE-220001-10	20.0K, 1 PCNT, 1/3W, METAL FILM, ,	2		R20, R23
SW-000043-00	SWITCH, 4P3T, SLIDE, PCB MOUNT	1		SW1
WC-000128-00	RIBBON CABLE ASSY, , 28 AWG, 16 CONDUCTOR, PL9.0, 8.75" L,	2		
WP-000178-00	PCB ASSY, INPUT DAUGHTER, PL6.0/PL9.0, ,	1		

Input Daughterboard Assembly (QSC part # WP-000178-00)

Where used: PowerLight 6.0^{PFC} and PowerLight 9.0^{PFC}, 120 and 230 volts.

This is a subassembly of the Input PCB Assembly (WP-000265-00 or WP-000175-00); one per amplifier.

QSC Part #	Description	Qty	Comments	Reference
CA-122001-10	220PF, 10 PCNT, 100V, CERAMIC NPO, DISC,	1		C1
CA-322002-10	0.022UF, 5 PCNT, 50V, FILM, DIPPED,	2		C2, C4
CO-000084-00	HEADER, 0.1" CENTERS, 12 POS (1X12), MALE, TERMINAL STRIP RIGHT ANGLE	2		J1A, J2A
CO-000106-00	JACK, HD15, 15 POS, FEMALE, RIGHT ANGLE SWAGED JACK SCREW	1	REF: J33	J5
CO-000119-00	JACK, EURO, 2 POS, FEMALE, GREEN	1		J6
CO-000120-00	JACK, EURO, 3 POS, FEMALE, GREEN	2		J3, J4
HW-040001-00	BRACKET, ANGLE, #4-40, 0.375" L, ZINC PLATED STEEL,	2		
PC-000178-00	INPUT DAUGHTER, PL9.0, ,	1	MASK J1A, J2A	
QD-004148-DX	DIODE, 75V, 0.075A, , 1N4148, DO-35, 4NS	1		D1
SC-040041-PP	PHILLIPS, PANHEAD, #4-40, 0.25" L, BLACK,	2		

Audio Channel Module Assembly (QSC part number WP-000276-00)

Where used: PowerLight 6.0 II and PowerLight 6.0^{PFC}, both 120 and 230 volts.

This is a subassembly of the chassis assembly; two per amplifier.

QSC Part #	Description	Qty	Comments	Reference
CA-027001-30	27PF, 5 PCNT, 50V, CERAMIC NPO, 0805,	3		C52, C128, C134
CA-027002-30	27PF, 5 PCNT, 250V, CERAMIC NPO, 1206,	3		C15, C35, C51
CA-033001-30	33PF, 5 PCNT, 100V, CERAMIC NPO, 0805,	8		C84, C139, C140, C143-C147
CA-110002-30	100PF, 5 PCNT, 50V, CERAMIC NPO, 0805,	6		C93, C99, C109, C112, C113, C116
CA-118000-30	180PF, 5 PCNT, 100V, CERAMIC NPO, 0805,	1		C50
CA-122002-30	220PF, 5 PCNT, 50V, CERAMIC NPO, 0805,	2		C54, C124
CA-130000-30	300PF, 5 PCNT, 50V, CERAMIC NPO, 0805,	1		C130
CA-133002-30	330PF, 5 PCNT, 50V, CERAMIC NPO, 0805,	5		C115, C132, C133, C730, C732
CA-147004-30	470PF, 5 PCNT, 50V, CERAMIC NPO, 0805,	4		C32, C43, C46, C58
CA-168003-30	680PF, 5 PCNT, 50V, CERAMIC NPO, 0805,	1		C713
CA-310001-10	0.01UF, 10 PCNT, 100V, FILM, DIPPED,	1		C745
CA-310004-30	0.01UF, 10 PCNT, 50V, CERAMIC X7R, 1206,	3		C81, C709, C710
CA-322005-30	0.022UF, 5 PCNT, 250V, FILM, 2220,	5		C725-C727, C740, C741
CA-410006-30	0.1UF, 10 PCNT, 50V, CERAMIC X7R, 1206,	68		C3-C5, C10, C17, C18, C21, C22, C29, C36-C38, C40, C42, C47, C60, C82, C83, C90, C91, C94, C96, C97, C100, C104, C106, C110, C118-C120, C122, C123, C136, C137, C708, C711, C712, C720-C722, C728, C733-C737, C744
CA-410009-00	0.1UF, 5 PCNT, 250V, FILM, WRAPPED,	4	USE .050 SPACER THIS PART HAS TWO DIFFERENT PREP	C64-C67
CA-410009-00	0.1UF, 5 PCNT, 250V, FILM, WRAPPED,	2	USE .050 SPACER (PREP BY HAND AT VERTICAL POSITION) THIS PART HAS TWO DIFFERENT PREP	C723, C724
CA-447006-30	0.47UF, 20 PCNT, 25V, TANTALUM, 3216,	6		C34, C39, C44, C92, C102, C103
CA-510004-30	1.0UF, 20 PCNT, 50V, CERAMIC Z5U, 1210,	5		C14, C714, C717-C719
CA-610005-30	10UF, 20 PCNT, 35V, TANTALUM, SMT,	10		C2, C8, C11-C13, C16, C20, C27, C101, C105
CA-610008-30	10UF, 20 PCNT, 20V, TANTALUM, 6032,	8		C70-C77
CA-622002-30	22UF, 20 PCNT, 25V, TANTALUM, SMT,	18		C6, C7, C19, C30, C31, C33, C48, C49, C55, C62, C63, C68, C107, C111, C117, C125, C126, C129
CA-633001-00	33UF, 20 PCNT, 400V, ELECTROLYTIC, ,	1	USE .050 SPACER	C1
CA-647003-10	47UF, 10 PCNT, 10V, ELECTROLYTIC, , NON-POLAR LOW PROFILE	10		C28, C88, C89, C98, C108, C114, C121, C127, C131, C742
CA-710001-10	100UF, 20 PCNT, 35V, ELECTROLYTIC, ,	1		C59
CA-922002-00	22000UF, 20 PCNT, 50V, ELECTROLYTIC, ,	4		C9, C26, C41, C57

Audio Channel Module Assembly WP-000276-00 (continued)

QSC Part #	Description	Qty	Comments	Reference
CH-000091-00	CLAMP, TO-264, 5.1", PL9.0,	2		
CH-000091-01	CLAMP, TO-264, 4.5", PL9.0,	3		
CH-000074-00	HEAT SINK, AUDIO, 8", PL9.0,	3		
CH-000075-00	HEAT SINK, AUDIO, 14", PL9.0,	1		
CO-000074-00	HEADER, 0.1" CENTERS, 8 POS (1X8), MALE, RAMP LOCK	1		J4
CO-000033-CO	HEADER, 0.1" CENTERS, 4 POS (1X4), MALE, RAMP LOCK	1		J5
CO-000056-CO	HEADER, 0.1" CENTERS, 16 POS (2X8), MALE, LATCHING BOX	1		J7
CO-000124-00	BARRIER STRIP, 0.375" CENTERS, 5 POS, , SHORT PIN	1		J3
HW-000005-SO	SPACER, 0.312" ROUND, #8, 0.187" L, BRASS, SWAGE	4		
HW-000008-SO	SPACER, 0.312" ROUND, #8, 0.187" L, ALUMINUM, SWAGE	11		
IC-000046-30	OPAMP, DUAL, TL072, SMT,	10		U2, U5, U6, U9, U15, U17, U19, U20, U22, U23
IC-000047-30	COMPARATOR, DUAL, LM393, SMT,	2		U7, U8
IC-000048-30	OPAMP, DUAL, MC33078, ,	1		U18
IC-000059-00	TOP SWITCH, , TOP202, ,	1		U3
IC-000067-30	DIFFERENTIAL AMPLIFIER, DUAL, CA3054, SMT,	5		U21, U24-U26, U28
IC-000070-30	VOLTAGE REFERENCE, +2.5V, LM4040DIM3X-2.5, ,	1		U1
IC-000071-00	SENSOR, TEMPERATURE, LM35DZ, ,	1		U10
IC-000073-30	TRANSCONDUCTANCE OPAMP, DUAL, LM13600M, ,	1		U16
MS-000102-00	SHIELD, ELECTRO-MAGNETIC, INSULATED, PL9.0,	1		
NW-100300-00	PRESS-IN NUT, #10-32, , ,	2		
PC-000182-00	PCB MAIN, PL 9.0, ,	1		
PL-000091-00	INSULATOR, STEP SWITCH, PL9.0, THERMALLY CONDUCTIVE, ,	1		
PL-000092-00	ISOLATOR, SPRING, PL9.0, FR-4 PCB, ,	1		
PL-000094-00	INSULATOR, CAPACITOR, PL9.0, FISH PAPER, ,	1		
PL-000112-00	RIVET, , 0.156" X 0.322", PLASTIC, ,	1		
PL-000121-00	SPACER, LED/TO-92, 0.18", PVC, BLACK,	1		
PL-905156-SP	SPACER, ROUND, 0.047"ID X 0.25"OD X 0.155"L, NYLON, ,	6		
PL-905385-SP	SPACER, ROUND, 0.047"ID X 0.25"OD X 0.385"L, NYLON, ,	1		
PT-250000-AT	TRIM, 5K, 20 PCNT, 0.15W, ,	1		VR1
QD-000024-QD	DIODE ZENER, 6.2V, , 0.25W, DZ901116G, DO-35,	3		D96-D98
QD-000062-10	TRANSISTOR NPN, 40V, 0.2A, 1.5W, 2N3904, TO-92,	1		Q700
QD-000063-10	TRANSISTOR PNP, 40V, 0.2A, 1.5W, 2N3906, TO-92,	1		Q701
QD-000065-10	TRANSISTOR PNP, 300V, 0.5A, 1.5W, MPSA92, TO-92,	3		Q23, Q83, Q88
QD-000078-10	TRANSISTOR NPN DARLINGTON, 30V, 0.5A, 1.5W, MPSA13, TO-92,	3		Q3, Q16, Q26
QD-000080-20	DIODE ZENER, 11V, , 1W, 1N4741A, DO-41,	7		D29, D33, D48, D50, D53-D55
QD-000102-30	DIODE, 75V, 0.075A, , IMBD4148, SOT-23, 4NS	49		D15, D18, D22, D23, D25, D27, D28, D32, D35, D38, D39, D51, D58, D59, D79, D84, D85, D87, D88, D90- D95, D706, D708, D713, D715, D717-D720, D723- D736
QD-000103-30	TRANSISTOR NPN, 40V, 0.2A, 0.2W, MMST3904, SOT-23,	56		Q2, Q5, Q8, Q10, Q13, Q28, Q45, Q46, Q49, Q50, Q53, Q56, Q58, Q59, Q62, Q68, Q71, Q73-Q77, Q81, Q84, Q86, Q90, Q96, Q97, Q99, Q100, Q102, Q104, Q107, Q110, Q112, Q113, Q118, Q120, Q121, Q125-Q127, Q130, Q135, Q136, Q137, Q702, Q704
QD-000104-30	TRANSISTOR PNP, 40V, 0.2A, 0.2W, MMST3906, SOT-23,	65		Q7, Q11, Q20, Q31, Q34, Q54, Q55, Q57, Q60, Q64- Q67, Q69, Q70, Q78, Q79, Q82, Q85, Q91-Q95, Q98, Q101, Q103, Q105, Q106, Q108, Q109, Q111, Q114- Q117, Q119, Q122-Q124, Q128, Q129, Q131, Q132, Q133, Q703, Q705
QD-000105-30	TRANSISTOR NPN, 300V, 0.2A, 0.2W, MMBA42, SOT-23,	6		Q6, Q18, Q19, Q21, Q22, Q30
QD-000106-30	TRANSISTOR PNP, 300V, 0.2A, 0.2W, MMBA92, SOT-23,	4		Q9, Q15, Q32, Q169
QD-000107-30	JFET N-CHANNEL, 35V, , , PMBFJ112, SOT-23, RDS ON 50 OHMS	2		Q29, Q706
QD-000108-30	DIODE, 200V, 0.2A, , BAS21, SOT-23, 50NS	5		D6, D21, D24, D41, D42

Audio Channel Module Assembly WP-000276-00 (continued)

QSC Part #	Description	Qty	Comments	Reference
QD-000109-30	DIODE ZENER, 4.7V, , 0.3W, BZX84C4V7, SOT-23,	1		D14
QD-000110-30	DIODE ZENER, 6.2V, , 0.3W, BZX84C6V2, SOT-23,	6		D30, D31, D36, D43, D81, D83
QD-000111-30	DIODE ZENER, 12V, , 0.3W, BZX84C12, SOT-23,	7		D3, D19, D40, D44, D46, D721, D722
QD-000114-30	DIODE ZENER, 150V, , 600W PEAK, P6SMB150AT3, SMB,	1		D11
QD-000115-30	DIODE RECTIFIER ULTRAFAST, 600V, 1A, , MURS160T3, SMB, 75NS	1		D12
QD-000116-30	DIODE RECTIFIER ULTRAFAST, 200V, 1A, , MURS120, SMB, 35NS	5		D2, D4, D7, D9, D13
QD-000123-10	TRANSISTOR NPN, 300V, 0.5A, 0.68W, MPSA42, TO-92,	5		Q25, Q47, Q48, Q51, Q52
QD-000124-10	TRANSISTOR PNP DARLINGTON, 30V, 0.5A, 0.625, MPSA63, TO-92,	3		Q4, Q17, Q27
QD-000127-30	TRANSISTOR PNP, 20V, 0.05A, 0.35W, MMBTH81, SOT-23,	2		Q72, Q80
QD-000128-30	TRANSISTOR NPN, 25V, 4A, 0.5W, MMBTH10, SOT-23,	2		Q87, Q89
QD-000129-00	TRANSISTOR PNP, 100V, 5A, 28W, MJF127, TO-220,	1		Q33
QD-000157-10	DIODE, 1000V, 1.5A, , 1N5399, DO-15,	1		D1
QD-000159-20	DIODE ZENER, 47V, , 1W, 1N4756, DO-41,	3		D5, D17, D37
QD-000160-00	DIODE RECTIFIER ULTRAFAST, 200V, 60A, , APT60D20B, TO-247AD, 85NS	3		D10, D34, D47
QD-000163-30	LED RED, , , , SML-010, VOLTAGE REFERENCE	10		LD1-LD10
QD-000176-00	MOSFET N-CHANNEL, 55V, 81A, 170W, IRFP054N, TO-264,	3		Q1, Q14, Q24
QD-000177-00	MOSFET N-CHANNEL, 200V, 46A, 280W, IRFP260, TO-264,	8		Q35-Q42
QD-004148-DX	DIODE, 75V, 0.075A, , 1N4148, DO-35, 4NS	1		D714
RE-.04001-00	0.04, 1 PCNT, 20W, MICRONOX FILM, TO-220,	8	FLAT	R137-R140, R163-R166
RE-.15001-00	1.5, 2 PCNT, 3W, METAL OXIDE FP, ,	2	THIS PART HAS TWO DIFFERENT PREP (PREP BY HAND AT VERTICAL POSITION) (PREP BY XURON TOOL, IF COMPONENT IS BIG) USE .050 SPACER. R700, R701	
RE-.15001-00	1.5, 2 PCNT, 3W, METAL OXIDE FP, ,	2	THIS PART HAS TWO DIFFERENT PREP (PREP BY HAND AT VERTICAL POSITION) (PREP BY XURON TOOL, IF COMPONENT IS BIG) USE .050 SPACER. R68, R97	
RE-.15002-30	1.5, 5 PCNT, 1W, THICK FILM, 2512, 200V	3		R722-R724
RE-.22100-30	2.21, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	8		R41, R126, R128, R131, R134, R154, R182, R466
RE-.24001-00	2.4, 5 PCNT, 5W, METAL OXIDE FP, , NON-INDUCTIVE	8	-USE .050 SPACER FLUSH TO PCB(R42, R79 USE .300 SPACER) R117, R119, R120, R121, R42, R719, R720, R79	
RE-.68100-30	6.81, 1 PCNT, 1/10W, THICK FILM, 0805,	8		R23, R109, R110, R112, R158, R161, R172, R183
RE-000009-PT	PTC, 100 OHMS, 470 OHMS, , 90C, MURATA-ERIE	1	USE THE UNPREPPED PARTS FROM PREP AREA, HAND CUT ACCORDING TO THE DRAWING	R1
RE-001501-10	15, 1 PCNT, 1/8W, METAL FILM, ,	7		R2, R43, R94, R115, R116, R708, R736
RE-003921-30	39.2, 1 PCNT, 1/8W, THICK FILM, 1206, 200V	1		R142
RE-004701-10	47, 5 PCNT, 2W, METAL OXIDE FP, MINI,	2		R26, R27
RE-004752-30	47.5, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	7		R201, R237, R361, R716-R718, R731
RE-006803-10	68, 5 PCNT, 1/2W, CARBON FILM, ,	4		R113, R114, R146, R156
RE-010002-30	100, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	49		R6, R18, R54, R58, R70, R78, R80, R210, R214, R217, R218, R227, R238, R264, R269, R270, R279, R291, R293, R316, R321, R329, R330, R338, R350, R353, R364, R367, R369-R372, R379, R381, R382, R384, R393-R396, R401, R403, R407, R408
RE-010003-10	100, 1 PCNT, 1/8W, METAL FILM, ,	2		R185, R186
RE-015002-10	150, 5 PCNT, 1/2W, CARBON FILM, ,	2		R111, R411
RE-015002-10	150, 5 PCNT, 1/2W, CARBON FILM, ,	2	THIS PART HAS TWO DIFFERENT PREP	R725, R726
RE-015006-30	150, 1 PCNT, 1/8W, THICK FILM, 1206, 200V	1		R144
RE-020002-30	200, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	14		R30, R150, R189, R191, R240, R244, R250, R252, R302, R326, R348, R352, R742, R746
RE-022100-30	221, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	8		R22, R92, R136, R148, R152, R173, R176, R178
RE-030900-30	309, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	16		R31, R38, R127, R135, R124, R125, R130, R133, R155, R141, R162, R167, R168, R169, R180, R181
RE-033203-30	332, 1 PCNT, 1/4W, THICK FILM, 1210, 200V	4		R206, R347, R358, R365

Audio Channel Module Assembly WP-000276-00 (continued)

QSC Part #	Description	Qty	Comments	Reference
RE-047502-30	475, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	16		R4, R21, R107, R118, R123, R129, R132, R145, R147, R153, R159, R171, R174, R177, R196, R410
RE-047506-30	475, 1 PCNT, 1/4W, THICK FILM, 1210, 200V	1		R276
RE-053602-30	536, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	16		R266, R280, R288, R296, R328, R349, R359, R360, R399, R412-R418
RE-110002-30	1.00K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	37		R16, R86, R90, R100, R212, R239, R273, R285, R301, R322, R323, R339, R342, R354, R362, R373-R375, R377, R380, R383, R385, R386, R390-R392, R397, R402, R404, R405, R409, R702, R703, R713-R715, R747
RE-113302-30	1.33K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	16		R10, R52, R61, R65, R82, R91, R93, R103, R122, R246, R290, R299, R320, R324, R711, R744
RE-156001-10	5.60K, 0.1 PCNT, 1/4W, METAL FILM, , 25PPM	21		R25, R29, R34, R37, R40, R45, R192, R200, R207, R209, R224, R305-R312, R332, R335
RE-156001-10	5.60K, 0.1 PCNT, 1/4W, METAL FILM, , 25PPM	2		R88, R96
RE-115002-30	1.50K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	8		R376, R378, R387, R388, R389, R398, R400, R406
RE-121501-30	2.15K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R356
RE-122102-30	2.21K, 1 PCNT, 1/4W, THICK FILM, 1210, 200V	3		R84, R85, R151
RE-124902-30	2.49K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	3		R345, R355, R366
RE-128702-30	2.87K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	20		R9, R17, R19, R32, R51, R67, R73, R89, R102, R221, R229, R242, R247, R249, R265, R267, R277, R278, R341, R363
RE-133006-30	3.3K, 0.1 PCNT, 1/10W, THICK FILM, 0805, 100V	6		R213, R228, R235, R245, R297, R315
RE-134802-30	3.48K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	14		R11, R53, R55, R71, R74, R75, R87, R143, R222, R236, R275, R282, R284, R351
RE-145302-30	4.53K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	5		R13, R35, R59, R104, R340
RE-147005-DM	4.7K, 5 PCNT, 1W, METAL OXIDE FP, ,	4	USE .050 SPACER, HAND PREP, VERTICAL POSITION	R732-R735
RE-159002-30	5.90K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	14		R7, R48, R49, R101, R108, R160, R251, R294, R295, R333, R336, R337, R357, R346
RE-175002-30	7.50K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	10		R8, R63, R243, R262, R272, R286, R325, R728, R729, R745
RE-210003-30	10.0K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	10		R50, R198, R220, R231, R274, R298, R300, R709, R710, R741
RE-215002-30	15.0K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	16		R14, R47, R57, R69, R77, R99, R149, R197, R205, R223, R271, R303, R313, R314, R319, R343
RE-222006-BM	22K, 5 PCNT, 1W, METAL OXIDE FP, ,	1		R737
RE-229402-30	29.4K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	7		R12, R106, R226, R233, R263, R706, R707
RE-239202-30	39.2K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	21		R3, R5, R15, R20, R46, R56, R72, R76, R95, R98, R105, R202, R203, R248, R261, R268, R281, R287, R292, R327, R743
RE-293102-30	93.1K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	5		R62, R66, R83, R317, R318
RE-311301-30	113K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	4		R193, R194, R215, R219
RE-312102-30	121K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R727
RE-313300-30	133K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	4		R187, R188, R216, R230

Audio Channel Module Assembly WP-000276-00 (continued)

QSC Part #	Description	Qty	Comments	Reference
RE-321002-10	210K, 0.1 PCNT, 1/4W, METAL FILM, , 25PPM	23		R24, R28, R33, R36, R39, R44, R195, R204, R211, R225, R232, R234, R241, R253-R260, R331, R334
RE-330902-30	309K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	3		R60, R64, R81
RE-339005-BC	390K, 5 PCNT, 1/4W, CARBON FILM, ,	1		R344
RE-339201-30	392K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	5		R190, R199, R208, R289, R304
SC-061041-PP	PHILLIPS TYPE 2, PANHEAD, #6, 0.25" L, BLACK, TYPE AB	8		
SC-080123-HC	HEX, CAP, #8-32, 0.625" L, BLACK,	15		
WC-000112-10	JUMPER, 0.2" TEFLON INSULATION, 22 AWG, 1 CONDUCTOR, , 0.3" L, AUTO INSERTABLE	8		W1- W8
WC-000129-00	RIBBON CABLE ASSY, , 28 AWG, 16 CONDUCTOR, PL9.0, 12" L,	1		
XF-000038-00	TRANSFORMER, HOUSEKEEPING, , , , PL9.0, , AMP MODULE	1		T1
XF-000040-00	INDUCTOR, , TOROID, 0.5UH, PL9.0, ,	2		L2, L3
XF-000049-00	INDUCTOR, COMMON MODE, , 120UH, , ,	1	NO POLARITY	L1
XF-000068-00	INDUCTOR, ZOBEL, , 1UH, , ,	1		L4

Audio Channel Module Assembly (QSC part # WP-000182-00)

Where used: PL 9.0^{PFC}, 120 and 230 volts.

This is a subassembly of the Chassis Assembly, WP-000170-00 or WP-000170-02; two per amplifier.

QSC Part #	Description	Qty	Comments	Reference
CA-027001-30	27PF, 5 PCNT, 50V, CERAMIC NPO, 0805,	3		C52, C128, C134
CA-027002-30	27PF, 5 PCNT, 250V, CERAMIC NPO, 1206,	3		C15, C35, C51
CA-033001-30	33PF, 5 PCNT, 100V, CERAMIC NPO, 0805,	8		C84, C139, C140, C143-C147
CA-110002-30	100PF, 5 PCNT, 50V, CERAMIC NPO, 0805,	6		C93, C99, C109, C112, C113, C116
CA-118000-30	180PF, 5 PCNT, 100V, CERAMIC NPO, 0805,	1		C50
CA-122002-30	220PF, 5 PCNT, 50V, CERAMIC NPO, 0805,	2		C54, C124
CA-130000-30	300PF, 5 PCNT, 50V, CERAMIC NPO, 0805,	1		C130
CA-133002-30	330PF, 5 PCNT, 50V, CERAMIC NPO, 0805,	5		C115, C132, C133, C730, C732
CA-147004-30	470PF, 5 PCNT, 50V, CERAMIC NPO, 0805,	4		C32, C43, C46, C58
CA-168003-30	680PF, 5 PCNT, 50V, CERAMIC NPO, 0805,	1		C713
CA-310001-10	0.01UF, 10 PCNT, 100V, FILM, DIPPEDn,	1		C745
CA-310004-30	0.01UF, 10 PCNT, 50V, CERAMIC X7R, 1206,	3		C81, C709, C710
CA-322005-30	0.022UF, 5 PCNT, 250V, FILM, 2220,	5		C725-C727, C740, C741
CA-410006-30	0.1UF, 10 PCNT, 50V, CERAMIC X7R, 1206,	68		C3-C5, C10, C17, C18, C21, C22, C29, C36-C38, C40, C42, C47, C60, C82, C83, C90, C91, C94, C96, C97, C100, C104, C106, C110, C118-C120, C122, C123, C136, C137, C708, C711, C712, C720-C722, C728, C733-C737, C744
CA-410009-00	0.1UF, 5 PCNT, 250V, FILM, WRAPPED,	4	USE .050 SPACER THIS PART HAS TWO DIFFERENT PREP	C64, C65, C66, C67
CA-410009-00	0.1UF, 5 PCNT, 250V, FILM, WRAPPED,	2	USE .050 SPACER (PREP BY HAND AT VERTICAL POSITION) THIS PART HAS TWO DIFFERENT PREP	C723, C724
CA-447006-30	0.47UF, 20 PCNT, 25V, TANTALUM, 3216,	6		C34, C39, C44, C92, C102, C103
CA-510004-30	1.0UF, 20 PCNT, 50V, CERAMIC Z5U, 1210,	5		C14, C714, C717-C719
CA-610005-30	10UF, 20 PCNT, 35V, TANTALUM, SMT,	10		C2, C8, C11-C13, C16, C27, C20, C101, C105
CA-610008-30	10UF, 20 PCNT, 20V, TANTALUM, 6032,	8		C70-C77
CA-622002-30	22UF, 20 PCNT, 25V, TANTALUM, SMT,	18		C6, C7, C19, C30, C31, C33, C48, C49, C55, C62, C63, C68, C107, C111, C117, C125, C126, C129
CA-633001-00	33UF, 20 PCNT, 400V, ELECTROLYTIC, ,	1	USE .050 SPACER	C1

Audio Channel Module Assembly WP-000182-00 (continued)

QSC Part #	Description	Qty	Comments	Reference
CA-647003-10	47UF, 10 PCNT, 10V, ELECTROLYTIC, , NON-POLAR LOW PROFILE	10		C28, C88, C89, C98, C108, C114, C121, C127, C131, C742
CA-710001-10	100UF, 20 PCNT, 35V, ELECTROLYTIC, ,	1		C59
CA-922002-00	22000UF, 20 PCNT, 50V, ELECTROLYTIC, ,	4		C9, C26, C41, C57
CH-000074-00	HEAT SINK, AUDIO, 8", PL9.0,	3		
CH-000075-00	HEAT SINK, AUDIO, 14", PL9.0,	1		
CH-000091-00	CLAMP, TO-264, 5.1", PL9.0,	2		
CH-000091-01	CLAMP, TO-264, 4.5", PL9.0,	3		
CO-000033-C0	HEADER, 0.1" CENTERS, 4 POS (1X4), MALE, RAMP LOCK	1		J5
CO-000056-C0	HEADER, 0.1" CENTERS, 16 POS (2X8), MALE, LATCHING BOX	1		J7
CO-000074-00	HEADER, 0.1" CENTERS, 8 POS (1X8), MALE, RAMP LOCK	1		J4
CO-000124-00	BARRIER STRIP, 0.375" CENTERS, 5 POS, , SHORT PIN	1		J3
HW-000005-S0	SPACER, 0.312" ROUND, #8, 0.187" L, BRASS, SWAGE	4		
HW-000008-S0	SPACER, 0.312" ROUND, #8, 0.187" L, ALUMINUM, SWAGE	11		
IC-000046-30	OPAMP, DUAL, TL072, SMT,	10		U2, U5, U6, U9, U15, U17, U19, U20, U22, U23
IC-000047-30	COMPARATOR, DUAL, LM393, SMT,	2		U7, U8
IC-000048-30	OPAMP, DUAL, MC33078, ,	1		U18
IC-000059-00	TOP SWITCH, , TOP202, ,	1		U3
IC-000067-30	DIFFERENTIAL AMPLIFIER, DUAL, CA3054, SMT,	5		U21, U24, U25, U26, U28
IC-000070-30	VOLTAGE REFERENCE, +2.5V, LM4040DIM3X-2.5, ,	1		U1
IC-000071-00	SENSOR, TEMPERATURE, LM35DZ, ,	1		U10
IC-000073-30	TRANSCONDUCTANCE OPAMP, DUAL, LM13600M, ,	1		U16
MS-000102-00	SHIELD, ELECTRO-MAGNETIC, INSULATED, PL9.0,	1		
NW-100300-00	PRESS-IN NUT, #10-32, , ,	2		
PC-000182-00	PCB MAIN, PL 9.0, ,	1		
PL-000091-00	INSULATOR, STEP SWITCH, PL9.0, THERMALLY CONDUCTIVE, ,	1		
PL-000092-00	ISOLATOR, SPRING, PL9.0, FR-4 PCB, ,	1		
PL-000094-00	INSULATOR, CAPACITOR, PL9.0, FISH PAPER, ,	1		
PL-000112-00	RIVET, , 0.156" X 0.322", PLASTIC, ,	1		
PL-000121-00	SPACER, LED/TO-92, 0.18", PVC, BLACK,	1		
PL-905156-SP	SPACER, ROUND, 0.047"ID X 0.25"OD X 0.155"L, NYLON, ,	6		
PL-905385-SP	SPACER, ROUND, 0.047"ID X 0.25"OD X 0.385"L, NYLON, ,	1		
PT-250000-AT	TRIM, 5K, 20 PCNT, 0.15W, ,	1		VR1
QD-000024-QD	DIODE ZENER, 6.2V, , 0.25W, DZ901116G, D0-35,	3		D96-D98
QD-000062-10	TRANSISTOR NPN, 40V, 0.2A, 1.5W, 2N3904, TO-92,	1		Q700
QD-000063-10	TRANSISTOR PNP, 40V, 0.2A, 1.5W, 2N3906, TO-92,	1		Q701
QD-000065-10	TRANSISTOR PNP, 300V, 0.5A, 1.5W, MPSA92, TO-92,	3		Q23, Q83, Q88
QD-000078-10	TRANSISTOR NPN DARLINGTON, 30V, 0.5A, 1.5W, MPSA13, TO-92,	3		Q3, Q16, Q26
QD-000080-20	DIODE ZENER, 11V, , 1W, 1N4741A, D0-41,	7		D29, D33, D48, D50, D53-D55
QD-000102-30	DIODE, 75V, 0.075A, , IMBD4148, SOT-23, 4NS	49		D15, D18, D22, D23, D25, D27, D28, D32, D35, D38, D39, D51, D58, D59, D79, D84, D85, D87, D88, D90-D95, D706, D708, D713, D715, D717-D719, D720, D723-D736
QD-000103-30	TRANSISTOR NPN, 40V, 0.2A, 0.2W, MMST3904, SOT-23,	56		Q2, Q5, Q8, Q10, Q13, Q28, Q45, Q46, Q49, Q50, Q53, Q56, Q58, Q59, Q62, Q68, Q71, Q73-Q77, Q81, Q84, Q86, Q90, Q96, Q97, Q99, Q100, Q102, Q104, Q107, Q110, Q112, Q113, Q118, Q120, Q121, Q125-Q127, Q130, Q135-Q137, Q702, Q704
QD-000104-30	TRANSISTOR PNP, 40V, 0.2A, 0.2W, MMST3906, SOT-23,	65		Q7, Q11, Q20, Q31, Q34, Q54, Q55, Q57, Q60, Q64-Q67, Q69, Q70, Q78, Q79, Q82, Q85, Q91-Q95, Q98, Q101, Q103, Q105, Q106, Q108, Q109, Q111, Q114-Q117, Q119, Q122-Q124, Q128, Q129, Q131-Q133, Q703, Q705

Audio Channel Module Assembly WP-000182-00 (continued)

QSC Part #	Description	Qty	Comments	Reference
QD-000105-30	TRANSISTOR NPN, 300V, 0.2A, 0.2W, MMBTA42, SOT-23,	6		Q6, Q18, Q19, Q21, Q22, Q30
QD-000106-30	TRANSISTOR PNP, 300V, 0.2A, 0.2W, MMBTA92, SOT-23,	4		Q9, Q15, Q32, Q169
QD-000107-30	JFET N-CHANNEL, 35V, , , PMBFJ112, SOT-23, RDS ON 50 OHMS	2		Q29, Q706
QD-000108-30	DIODE, 200V, 0.2A, , BAS21, SOT-23, 50NS	5		D6, D21, D24, D41, D42
QD-000109-30	DIODE ZENER, 4.7V, , 0.3W, BZX84C4V7, SOT-23,	1		D14
QD-000110-30	DIODE ZENER, 6.2V, , 0.3W, BZX84C6V2, SOT-23,	6		D30, D31, D36, D43, D81, D83
QD-000111-30	DIODE ZENER, 12V, , 0.3W, BZX84C12, SOT-23,	7		D3, D19, D40, D44, D46, D721, D722
QD-000114-30	DIODE ZENER, 150V, , 600W PEAK, P6SMB150AT3, SMB,	1		D11
QD-000115-30	DIODE RECTIFIER ULTRAFAST, 600V, 1A, , MURS160T3, SMB, 75NS	1		D12
QD-000116-30	DIODE RECTIFIER ULTRAFAST, 200V, 1A, , MURS120, SMB, 35NS	5		D2, D4, D7, D9, D13
QD-000123-10	TRANSISTOR NPN, 300V, 0.5A, 0.60W, MPSA42, TO-92,	5		Q25, Q47, Q48, Q51, Q52
QD-000124-10	TRANSISTOR PNP DARLINGTON, 30V, 0.5A, 0.625, MPSA63, TO-92,	3		Q4, Q17, Q27
QD-000127-30	TRANSISTOR PNP, 20V, 0.05A, 0.35W, MMBTH81, SOT-23,	2		Q72, Q80
QD-000128-30	TRANSISTOR NPN, 25V, 4A, 0.5W, MMBTH10, SOT-23,	2		Q87, Q89
QD-000129-00	TRANSISTOR PNP, 100V, 5A, 28W, MJF127, TO-220,	1		Q33
QD-000131-00	MOSFET N-CHANNEL, 70V, 110A, 500W, IXFK110N07, TO-264,	3		Q1, Q14, Q24
QD-000132-00	MOSFET N-CHANNEL, 200V, 74A, 416W, IXTK74N20, TO-264,	8		Q35-Q42
QD-000157-10	DIODE, 1000V, 1.5A, , 1N5399, DO-15,	1		D1
QD-000159-20	DIODE ZENER, 47V, , 1W, 1N4756, DO-41,	3		D5, D17, D37
QD-000160-00	DIODE RECTIFIER ULTRAFAST, 200V, 60A, , APT60D20B, TO-247AD, 85NS	3		D10, D34, D47
QD-000163-30	LED RED, , , , SML-010, VOLTAGE REFERENCE	10		LD1-LD10
QD-004148-DX	DIODE, 75V, 0.075A, , 1N4148, DO-35, 4NS	1		D714
RE-.04001-00	0.04, 1 PCNT, 20W, MICRONOX FILM, TO-220,	8	FLAT	R137-R140, R163-R166
RE-.15001-00	1.5, 2 PCNT, 3W, METAL OXIDE FP, ,	2	THIS PART HAS TWO DIFFERENT PREP (PREP BY HAND AT VERTICAL POSITION) (PREP BY XURON TOOL, IF COMPONENT IS BIG) USE .050 SPACER.	R700, R701
RE-.15001-00	1.5, 2 PCNT, 3W, METAL OXIDE FP, ,	2	THIS PART HAS TWO DIFFERENT PREP (PREP BY HAND AT VERTICAL POSITION) (PREP BY XURON TOOL, IF COMPONENT IS BIG) USE .050 SPACER.	R68, R97
RE-.15002-30	1.5, 5 PCNT, 1W, THICK FILM, 2512, 200V	3		R722, R723, R724
RE-.22100-30	2.21, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	8		R41, R126, R128, R131, R134, R154, R182, R466
RE-.24001-00	2.4, 5 PCNT, 5W, METAL OXIDE FP, , NON-INDUCTIVE	8	USE .050 SPACER FLUSH TO PCB USE .300 SPACER	R117, R119-R121, R719, R720 R42, R79
RE-.68100-30	6.81, 1 PCNT, 1/10W, THICK FILM, 0805,	8		R23, R109, R110, R112, R158, R161, R172, R183
RE-000009-PT	PTC, 100 OHMS, 470 OHMS, , 90C, MURATA-ERIE	1	USE THE UNPREPPED PARTS FROM PREP AREA, HAND CUT ACCORDING TO THE DRAWING	R1
RE-001501-10	15, 1 PCNT, 1/8W, METAL FILM, ,	7		R2, R43, R94, R115, R116, R708, R736
RE-003921-30	39.2, 1 PCNT, 1/8W, THICK FILM, 1206, 200V	1		R142
RE-004701-10	47, 5 PCNT, 2W, METAL OXIDE FP, MINI,	2		R26, R27
RE-004752-30	47.5, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	7		R201, R237, R361, R716-R718, R731
RE-006803-10	68, 5 PCNT, 1/2W, CARBON FILM, ,	4		R113, R114, R146, R156
RE-010002-30	100, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	49		R6, R18, R54, R58, R70, R78, R80, R210, R214, R217, R218, R227, R238, R264, R269, R270, R279, R291, R293, R316, R321, R329, R330, R338, R350, R353, R364, R367, R369-R372, R379, R381, R382, R384, R393, R394-R396, R401, R403, R407, R408
RE-010003-10	100, 1 PCNT, 1/8W, METAL FILM, ,	2		R185, R186
RE-015002-10	150, 5 PCNT, 1/2W, CARBON FILM, ,	2		R111, R411
RE-015002-10	150, 5 PCNT, 1/2W, CARBON FILM, ,	2	THIS PART HAS TWO DIFFERENT PREP	R725, R726
RE-015006-30	150, 1 PCNT, 1/8W, THICK FILM, 1206, 200V	1		R144
RE-020002-30	200, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	14		R30, R150, R189, R191, R240, R244, R250, R252, R302, R326, R348, R352, R742, R746

Audio Channel Module Assembly WP-000182-00 (continued)

QSC Part #	Description	Qty	Comments	Reference
RE-022100-30	221, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	8		R22, R92, R136, R148, R152, R173, R176, R178
RE-030900-30	309, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	16		R31, R38, R124, R125, R127, R130, R133, R135, R141, R155, R162, R167-R169, R180, R181
RE-033203-30	332, 1 PCNT, 1/4W, THICK FILM, 1210, 200V	5		R206, R276, R347, R358, R365
RE-047502-30	475, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	16		R4, R21, R107, R118, R123, R129, R132, R145, R147, R153, R159, R171, R174, R177, R196, R410
RE-053602-30	536, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	16		R266, R280, R288, R296, R328, R349, R359, R360, R399, R412-R418
RE-110002-30	1.00K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	37		R16, R86, R90, R100, R212, R239, R273, R285, R301, R322, R323, R339, R342, R354, R362, R373-R375, R377, R380, R383, R385, R386, R390-R392, R397, R402, R404, R405, R409, R702, R703, R713-R715, R747
RE-113302-30	1.33K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	15	R82,	R10, R52, R61, R65, R91, R93, R103, R122, R246, R290, R299, R320, R324, R744
RE-115002-30	1.50K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	8		R376, R378, R387-R389, R398, R400, R406
RE-121501-30	2.15K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R356
RE-122102-30	2.21K, 1 PCNT, 1/4W, THICK FILM, 1210, 200V	3		R84, R85, R151
RE-124902-30	2.49K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	3		R345, R355, R366
RE-128702-30	2.87K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	21		R9, R17, R19, R32, R51, R67, R73, R89, R102, R221, R229, R242, R247, R249, R265, R267, R277, R278, R341, R363, R711
RE-133006-30	3.3K, 0.1 PCNT, 1/10W, THICK FILM, 0805, 100V	6		R213, R228, R235, R245, R297, R315
RE-134802-30	3.48K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	14	R74,	R11, R53, R55, R71, R75, R87, R143, R222, R236, R275, R282, R284, R351
RE-145302-30	4.53K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	5		R13, R35, R59, R104, R340
RE-147005-DM	4.7K, 5 PCNT, 1W, METAL OXIDE FP, ,	4	USE .050 SPACER, HAND PREP, VERT. POSITION	R732-R735
RE-156001-10	5.60K, 0.1 PCNT, 1/4W, METAL FILM, , 25PPM	21	R40,	R25, R29, R34, R37, R45, R192, R200, R207, R209, R224, R305-R312, R332, R335
RE-156001-10	5.60K, 0.1 PCNT, 1/4W, METAL FILM, , 25PPM	2		R88, R96
RE-159002-30	5.90K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	14		R7, R48, R49, R101, R108, R160, R251, R294, R295, R333, R336, R337, R346, R357
RE-175002-30	7.50K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	10		R8, R63, R243, R262, R272, R286, R325, R728, R729, R745
RE-210003-30	10.0K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	10		R50, R198, R220, R231, R274, R298, R300, R709, R710, R741
RE-215002-30	15.0K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	16	R77,	R14, R47, R57, R69, R99, R149, R197, R205, R223, R271, R303, R313, R314, R319, R343
RE-222006-BM	22K, 5 PCNT, 1W, METAL OXIDE FP, ,	1		R737

Audio Channel Module Assembly WP-000182-00 (continued)

QSC Part #	Description	Qty	Comments	Ref erence
RE-229402-30	29.4K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	5		R12, R106, R263, R706, R707
RE-239202-30	39.2K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	23		R3, R5, R15, R20, R46, R56, R72, R76, R95, R98, R105, R202, R203, R226, R233, R248, R261, R268, R281, R287, R292, R327, R743
RE-293102-30	93.1K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	5		R62, R66, R83, R317, R318
RE-311301-30	113K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	4		R193, R194, R215, R219
RE-312102-30	121K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R727
RE-313300-30	133K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	4		R187, R188, R216, R230
RE-321002-10	210K, 0.1 PCNT, 1/4W, METAL FILM, , 25PPM	23		R24, R28, R33, R36, R39, R44, R195, R204, R211, R225, R232, R234, R241, R253-R260, R331, R334
RE-339005-BC	390K, 5 PCNT, 1/4W, CARBON FILM, ,	1		R344
RE-339201-30	392K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	8		R60, R64, R81, R190, R199, R208, R289, R304
SC-061041-PP	PHILLIPS TYPE 2, PANHEAD, #6, 0.25" L, BLACK, TYPE AB	8		
SC-080123-HC	HEX, CAP, #8-32, 0.625" L, BLACK,	15		
WC-000112-10	JUMPER, 0.2" TEFLON INSULATION, 22 AWG, 1 CONDUCTOR, , 0.3" L, AUTO INSERTABLE	8		W1-W8
WC-000129-00	RIBBON CABLE ASSY, , 28 AWG, 16 CONDUCTOR, PL9.0, 12" L,	1		
XF-000038-00	TRANSFORMER, HOUSEKEEPING, , , , PL9.0, , AMP MODULE	1		T1
XF-000040-00	INDUCTOR, , TOROID, 0.5UH, PL9.0, ,	2		L2, L3
XF-000049-00	INDUCTOR, COMMON MODE, , 120UH, , ,	1	NO POLARITY	L1
XF-000068-00	INDUCTOR, ZOBEL, , 1UH, , ,	1		L4

Power Supply Assembly (QSC part # WP-000266-00)

Where used: PowerLight 6.0 II, 120 volts

This is a subassembly of the Chassis Assembly, WP-000268-00; two per amplifier.

QSC Part #	Description	Qty	Comments	Reference
CA-068002-30	68PF, 5 PCNT, 50V, CERAMIC NPO, 0805,	1		C40
CA-110001-10	100PF, 5 PCNT, 500V, MICA, DIPPED,	1		C147
CA-110002-30	100PF, 5 PCNT, 50V, CERAMIC NPO, 0805,	3		C1, C30, C39
CA-133001-10	330PF, 5 PCNT, 500V, MICA, DIPPED,	2		C145, C146
CA-147003-30	470PF, 5 PCNT, 50V, CERAMIC NPO, 1206,	2		C119, C121
CA-147004-30	470PF, 5 PCNT, 50V, CERAMIC NPO, 0805,	1		C22
CA-210006-30	0.001UF, 2 PCNT, 100V, CERAMIC NPO, 0805,	2		C2, C5
CA-215003-30	0.0015UF, 10 PCNT, 25V, CERAMIC X7R, 0805,	3		C44, C120, C124
CA-222001-00	0.0022UF, 20 PCNT, 125VAC, CERAMIC Y5U, DISC, YCAP	1		C122
CA-227001-30	0.0027UF, 10 PCNT, 100V, CERAMIC X7R, 0805,	3		C108, C109, C128
CA-233001-10	0.0033UF, 10 PCNT, 100V, FILM, DIPPED,	1		C113
CA-347002-30	0.047UF, 20 PCNT, 50V, CERAMIC Z5U, 0805,	9		C3, C4, C11-C13, C15, C28, C64, C81
CA-410006-30	0.1UF, 10 PCNT, 50V, CERAMIC X7R, 1206,	1		C18
CA-410011-00	0.1UF, 10 PCNT, 400V, FILM, DIPPED,	3		C14, C107, C123
CA-410012-30	0.1UF, 10 PCNT, 25V, CERAMIC X7R, 0805,	9		C7, C17, C19, C20, C61, C65, C125, C135, C162
CA-422004-30	0.22UF, 10 PCNT, 50V, CERAMIC X7R, 1206,	1		C155
CA-447003-00	0.47UF, 10 PCNT, 400V, FILM, WRAPPED, PULSE	2		C37, C38
CA-510006-00	1.0UF, 20 PCNT, 250VAC, FILM, BOX STYLE, XCAP	1		C23
CA-515002-30	1.5UF, 20 PCNT, 35V, TANTALUM, 3216,	6		C6, C10, C21, C75, C77, C79
CA-522003-00	2.2UF, 20 PCNT, 400V, ELECTROLYTIC, ,	1		C73
CA-610006-30	10UF, 20 PCNT, 16V, ELECTROLYTIC, SMT,	1		C78
CA-610007-30	10UF, 20 PCNT, 6.3V, TANTALUM, 3528,	6		C9, C31, C32, C52, C80, C114
CA-710004-10	100UF, 20 PCNT, 25V, ELECTROLYTIC, , LOW ESR	4		C71, C72, C74, C76
CA-810004-00	1000UF, 20 PCNT, 55V, ELECTROLYTIC, ,	20		C151-C154, C158-C161, C164-C175

Power Supply Assembly WP-000266-00 (continued)

QSC Part #	Description	Qty	Comments	Reference
CA-822200-AE	2200UF, 20 PCNT, 200V, ELECTROLYTIC, ,	6		C132, C133, C136, C137, C140, C141
CH-000103-00	CLAMP, TO-3PL, 22 GA, PLX3002,	3		
CH-000262-00	HEAT SINK, PFC, 11", EVICTOR,	1		
CH-000263-00	HEAT SINK, MAIN SUPPLY, 13.5", EVICTOR,	1		
CO-000074-00	HEADER, 0.1" CENTERS, 8 POS (1X8), MALE, RAMP LOCK	1		J1
HW-000036-00	STANDOFF, 0.344" ROUND, #8, 0.187" L, ALUMINUM, SWAGE	4		
HW-000080-PS	STUD, PEM STYLE, #8-32, 0.500" L, TIN PLATED BRONZE,	2		E2, E1
IC-000024-00	CONTROLLER, PWM, SG3525AN, ,	1		U19
IC-000031-00	OPTO ISOLATOR, , 4N30, ,	1		U15
IC-000051-00	OPTO ISOLATOR, , MOC8101, ,	1		U1
IC-000053-30	TIMER, DUAL, LM556, ,	1		U14
IC-000054-30	COMPARATOR, QUAD, LM339AM, SMT,	1		U13
IC-000133-30	COMPARATOR, SINGLE, LM311, SMT,	2		U2, U3
IC-000134-00	DRIVER, MOSFET, IR2110, ,	1		U18
IC-000235-00	TOP SWITCH, , TOP224, ,	1	ASSY /W MS-000048-HS	U29
MS-000048-HS	HEAT SINK, TO-220, 1.375" X 0.86" X 0.395", LONG TAB, PLUG-IN	1	REF: U29	
MS-000143-30	FUSE, 0.5A, 32V, 1206, FAST (MS-000115-30)	1		F1
PC-000266-00	POWER SUPPLY, EVICTOR, ,	1		
PL-000010-00	BUMPER, ADHESIVE BACKED, 0.5" X 0.5", POLYURETHANE, BLACK,	8		
PL-000114-00	INSULATOR, IGBT/RECTIFIER, 1.25" X 3.20", THERMALLY CONDUCTIVE, ,	2		
PL-000121-00	SPACER, LED/TO-92, 0.18", PVC, BLACK,	1	REF: R28	
PL-000126-00	SPRING SEAT, TRANSISTOR, PLX, NYLON, ,	3		
PL-000134-00	GROMMET, VIBRATION DAMPING, 0.375" OD, NEOPRENE, ,	1		
QD-000022-QD	DIODE ZENER, 18V, , 1W, 1N4746A, DO-41,	1		D95
QD-000023-QD	DIODE ZENER, 180V, , 1.5W, 1N5955A, DO-41,	8		D9-D14, D19, D20
QD-000042-00	DIODE RECTIFIER ULTRAFAST, 400V, 3A, , MUR440, DO-201AD, 50NS	2		D70, D71
QD-000047-00	DIODE ZENER, 200V, , 1.5W, 1N5956B, DO-41,	1		D2
QD-000074-00	DIODE RECTIFIER ULTRAFAST, 400V, 15A, , MUR1540, TO-220, 50NS	2		D75, D80
QD-000102-30	DIODE, 75V, 0.075A, , IMBD4148, SOT-23, 4NS	4		D4, D29, D72, D89
QD-000103-30	TRANSISTOR NPN, 40V, 0.2A, 0.2W, MMST3904, SOT-23,	11		Q3, Q92, Q93, Q102, Q103, Q105, Q107-Q110, Q114
QD-000104-30	TRANSISTOR PNP, 40V, 0.2A, 0.2W, MMST3906, SOT-23,	7		Q94, Q95, Q100, Q101, Q104, Q111, Q112
QD-000108-30	DIODE, 200V, 0.2A, , BAS21, SOT-23, 50NS	1		D87
QD-000110-30	DIODE ZENER, 6.2V, , 0.3W, BZX84C6V2, SOT-23,	3		D21, D24, D28
QD-000113-30	DIODE ZENER, 10V, , 0.3W, BZX84C10, SOT-23,	2		D1, D5
QD-000115-30	DIODE RECTIFIER ULTRAFAST, 600V, 1A, , MURS160T3, SMB, 75NS	3		D58, D86, D100
QD-000116-30	DIODE RECTIFIER ULTRAFAST, 200V, 1A, , MURS120, SMB, 35NS	3		D25, D93, D96
QD-000125-00	DIODE RECTIFIER FAST, 600V, 37A, , DSEI30-06A, TO-247AD, 50NS	2		D77, D84
QD-000137-30	DIODE SCHOTTKY, 15V, 0.01A, , MMBD301LT1, SOT-23, VF MAX 0.6V	1		D3
QD-000163-30	LED RED, , , , SML-010, VOLTAGE REFERENCE	1		LD1
QD-000170-00	BRIDGE RECTIFIER, 600V, 50A, , , IN-LINE	1	(USE .050 SPACER FOR OLEMEF, FACE DOWN)	BR1
QD-000229-10	DIODE, 250V, 0.25A, , BAV21, DO-35, 50NS	2		D22, D23
QD-000235-00	RECTIFIER DUAL COMMON CATHODE, 500V, 30A, , BYV74W-500, TO-247,	2		D73, D85
QD-000243-00	IGBT, 600V, 32A, 140W, IXGR32N60C, TO-247,	2		Q96, Q97
QD-000248-30	DIODE ZENER, 15V, , 350MW, BZX84C15TR, SOT-23,	2		D6, D27
RE-.49900-30	4.99, 1 PCNT, 1/8W, THICK FILM, 1206, 200V	2		R359, R360
RE-000002-30	0, , , THICK FILM, 0805, JUMPER	1		R61
RE-000210-NR	NTC, 10 OHMS, 15 AMPS, , , INRUSH LIMIT	1		R324
RE-000230-NR	NTC, 10K, , 15 PCNT, , -4.4 PCNT PER C	1		R28
RE-001003-30	10, 1 PCNT, 1/8W, THICK FILM, 1206, 200V	1		R358
RE-001505-CC	15, 5 PCNT, 1/2W, CARBON FILM, ,	1		R174
RE-001502-10	15, 5 PCNT, 2W, METAL OXIDE FP, MINI,	1		R350
RE-002100-30	21, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R62
RE-002203-10	22, 5 PCNT, 3W, METAL OXIDE FP, ,	1	(USE .050 SPACER)	R372
RE-004701-10	47, 5 PCNT, 2W, METAL OXIDE FP, MINI,	1		R35
RE-004752-30	47.5, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R33
RE-010002-30	100, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	3		R2, R51, R57
RE-010700-30	107, 0.1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R21
RE-033203-30	332, 1 PCNT, 1/4W, THICK FILM, 1210, 200V	1		R180
RE-033205-30	332, 0.1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R16
RE-061901-30	619, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R96

Power Supply Assembly WP-000266-00 (continued)

QSC Part #	Description	Qty	Comments	Reference
RE-068001-10	680, 5 PCNT, 2W, METAL OXIDE FP, MINI,	1		R175
RE-090901-30	909, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R26
RE-093101-30	931, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R380
RE-113302-30	1.33K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R22
RE-120002-30	2.00K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R6
RE-122103-30	2.21K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	3		R18, R357, R367
RE-126700-30	2.67K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R337
RE-128702-30	2.87K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	2		R1, R3
RE-147502-30	4.75K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	3		R12, R330, R339
RE-156202-30	5.62K, 0.1 PCNT, 1/10W, THICK FILM, 0805, 100V	3		R8, R13, R14
RE-163401-10	6.34K, 1 PCNT, 1/8W, METAL FILM, ,	1		R4
RE-178702-30	7.87K, 0.1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R20
RE-197602-30	9.76K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R338
RE-210003-30	10.0K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	12		R5, R9-R11, R17, R19, R24, R25, R63, R64, R336, R363
RE-212104-30	12.1K, 0.1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R15
RE-212702-30	12.7K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R329
RE-215002-30	15.0K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	2		R48, R366
RE-229402-30	29.4K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	2		R29, R331
RE-230002-10	30K, 5 PCNT, 2W, METAL OXIDE FP, MINI,	1		R351
RE-230002-10	30K, 5 PCNT, 2W, METAL OXIDE FP, MINI,	5		R352-R356
RE-231601-30	31.6K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R325
RE-239202-30	39.2K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R332
RE-247503-30	47.5K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R323
RE-249900-30	49.9K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	5		R7, R34, R49, R50, R66
RE-263401-30	63.4K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	2		R52, R53
RE-310002-30	100K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	2		R56, R55
RE-315002-30	150K, 1 PCNT, 1/8W, THICK FILM, 1206, 200V	2		R341, R342
RE-339202-30	392K, 1 PCNT, 1/8W, THICK FILM, 1206, 200V	1		R340
RE-348702-30	487K, 1 PCNT, 1/8W, THICK FILM, 1206, 200V	4		R321, R322, R326, R328
SC-063100-PP	PHILLIPS, PANHEAD, #6, 0.625" L, ZINC, TYPE AB	10		
SW-000058-00	RELAY, SPDT, 12VDC COIL, 15A, 240VAC,	1		K1
WC-0.4016-JW	JUMPER, 0.3" TEFLON INSULATION, 16 AWG, 1 CONDUCTOR, , 0.4",	2		W9, W10
WC-000125-00	CABLE ASSY, DC OUTPUT, 10 AWG, 5 CONDUCTOR, PL9.0, 6" L,	1	REF: E4-E8(0-E8,1-E7,2-E6,3-E5,4-E4) FOLK TERMINAL FACE-UP	
WC-000237-00	RIBBON CABLE, FLEX STRIP, 24 AWG, 12 CONDUCTOR, PL6.0II, 11.25" L,	1	USE SPACER BETWEEN XF-000208-00 AND CABLE	
WC-5.2514-00	JUMPER, PVC INSULATION, 14 AWG, 1 CONDUCTOR, EVICTOR, 5.25" L,	1		
XF-000005-00	BEAD, 100MHZ, 271 OHM,	7		L7-L13
XF-000194-00	TRANSFORMER, SWITCHING, , , , NEW PL6.0, ,	1		T3
XF-000204-00	HOUSEKEEPING, FLYBACK, , , , EVICTOR, ,	1		T2
XF-000206-00	INDUCTOR, COMMON MODE, TOROID, 81UH, EVICTOR, ,	1		L4
XF-000208-00	INDUCTOR, SERIES RESONANT, TOROID, 1.0UH, , ,	1		L6

Power Supply Assembly (QSC part # WP-000266-02)

Where used: PowerLight 6.0 II, 230 volts.

This is a subassembly of the Chassis Assembly, WP-000268-02; two per amplifier.

QSC Part #	Description	Qty	Comments	Reference
CA-068002-30	68PF, 5 PCNT, 50V, CERAMIC NPO, 0805,	1		C40
CA-110001-10	100PF, 5 PCNT, 500V, MICA, DIPPED,	1		C147
CA-110002-30	100PF, 5 PCNT, 50V, CERAMIC NPO, 0805,	3		C1, C30, C39
CA-133001-10	330PF, 5 PCNT, 500V, MICA, DIPPED,	2		C145, C146
CA-147003-30	470PF, 5 PCNT, 50V, CERAMIC NPO, 1206,	2		C119, C121
CA-147004-30	470PF, 5 PCNT, 50V, CERAMIC NPO, 0805,	1		C22
CA-210006-30	0.001UF, 2 PCNT, 100V, CERAMIC NPO, 0805,	2		C2, C5
CA-215003-30	0.0015UF, 10 PCNT, 25V, CERAMIC X7R, 0805,	3		C44, C120, C124
CA-222001-00	0.0022UF, 20 PCNT, 125VAC, CERAMIC Y5U, DISC, YCAP	1		C122
CA-227001-30	0.0027UF, 10 PCNT, 100V, CERAMIC X7R, 0805,	3		C108, C109, C128
CA-233001-10	0.0033UF, 10 PCNT, 100V, FILM, DIPPED,	1		C113

Power Supply Assembly WP-000266-02 (continued)

QSC Part #	Description	Qty	Comments	Reference
CA-347002-30	0.047UF, 20 PCNT, 50V, CERAMIC Z5U, 0805,	9		C3, C4, C11-C13, C15, C28, C64, C81
CA-410011-00	0.1UF, 10 PCNT, 400V, FILM, DIPPED,	3		C14, C107, C123
CA-410012-30	0.1UF, 10 PCNT, 25V, CERAMIC X7R, 0805,	9		C7, C17, C19, C20, C61, C65, C125, C135, C162
CA-410006-30	0.1UF, 10 PCNT, 50V, CERAMIC X7R, 1206,	1		C18
CA-422004-30	0.22UF, 10 PCNT, 50V, CERAMIC X7R, 1206,	1		C155
CA-447003-00	0.47UF, 10 PCNT, 400V, FILM, WRAPPED, PULSE	2		C37, C38
CA-510006-00	1.0UF, 20 PCNT, 250VAC, FILM, BOX STYLE, XCAP	1		C23
CA-515002-30	1.5UF, 20 PCNT, 35V, TANTALUM, 3216,	6		C6, C10, C21, C75, C77, C79
CA-522003-00	2.2UF, 20 PCNT, 400V, ELECTROLYTIC, ,	1		C73
CA-610006-30	10UF, 20 PCNT, 16V, ELECTROLYTIC, SMT,	1		C78
CA-610007-30	10UF, 20 PCNT, 6.3V, TANTALUM, 3528,	6		C9, C31, C32, C52, C80, C114
CA-710004-10	100UF, 20 PCNT, 25V, ELECTROLYTIC, , LOW ESR	4		C71, C72, C74, C76
CA-810004-00	1000UF, 20 PCNT, 55V, ELECTROLYTIC, ,	20		C151-C154, C158-C161, C164-C175
CA-822200-AE	2200UF, 20 PCNT, 200V, ELECTROLYTIC, ,	6		C132, C133, C136, C137, C140, C141
CH-000103-00	CLAMP, TO-3PL, 22 GA, PLX3002,	3		
CH-000262-00	HEAT SINK, PFC, 11", EVICTOR,	1		
CH-000263-00	HEAT SINK, MAIN SUPPLY, 13.5", EVICTOR,	1		
HW-000036-00	STANDOFF, 0.344" ROUND, #8, 0.187" L, ALUMINUM, SWAGE	4		
HW-000080-PS	STUD, PEM STYLE, #8-32, 0.500" L, TIN PLATED BRONZE,	2		E1, E2
IC-000024-00	CONTROLLER, PWM, SG3525AN, ,	1		U19
IC-000031-00	OPTO ISOLATOR, , 4N30, ,	1		U15
IC-000051-00	OPTO ISOLATOR, , MOC8101, ,	1		U1
IC-000053-30	TIMER, DUAL, LM556, ,	1		U14
IC-000054-30	COMPARATOR, QUAD, LM339AM, SMT,	1		U13
IC-000133-30	COMPARATOR, SINGLE, LM311, SMT,	2		U2, U3
IC-000134-00	DRIVER, MOSFET, IR2110, ,	1		U18
IC-000235-00	TOP SWITCH, , TOP224, ,	1	ASSY /W MS-000048-HS	U29
MS-000048-HS	HEAT SINK, TO-220, 1.375" X 0.86" X 0.395", LONG TAB, PLUG-IN	1	REF: U29	
MS-000143-30	FUSE, 0.5A, 32V, 1206, FAST (MS-000115-30)	1		F1
PC-000266-00	POWER SUPPLY, EVICTOR, ,	1		
PL-000010-00	BUMPER, ADHESIVE BACKED, 0.5" X 0.5", POLYURETHANE, BLACK,	8		
PL-000114-00	INSULATOR, IGBT/RECTIFIER, 1.25" X 3.20", THERMALLY CONDUCTIVE, ,	2		
PL-000121-00	SPACER, LED/TO-92, 0.18", PVC, BLACK,	1	REF: R28	
PL-000126-00	SPRING SEAT, TRANSISTOR, PLX, NYLON, ,	3		
PL-000134-00	GROMMET, VIBRATION DAMPING, 0.375" OD, NEOPRENE, ,	1		
QD-000022-QD	DIODE ZENER, 18V, , 1W, 1N4746A, DO-41,	1		D95
QD-000023-QD	DIODE ZENER, 180V, , 1.5W, 1N5955A, DO-41,	8		D9-D14, D19, D20
QD-000042-00	DIODE RECTIFIER ULTRAFAST, 400V, 3A, , MUR440, DO-201AD, 50NS	2		D70, D71
QD-000047-00	DIODE ZENER, 200V, , 1.5W, 1N5956B, DO-41,	1		D2
QD-000074-00	DIODE RECTIFIER ULTRAFAST, 400V, 15A, , MUR1540, TO-220, 50NS	2		D75, D80
QD-000102-30	DIODE, 75V, 0.075A, , IMBD4148, SOT-23, 4NS	4		D4, D29, D72, D89
QD-000103-30	TRANSISTOR NPN, 40V, 0.2A, 0.2W, MMST3904, SOT-23,	11		Q3, Q92, Q93, Q102, Q103, Q105, Q107-Q110, Q114
QD-000104-30	TRANSISTOR PNP, 40V, 0.2A, 0.2W, MMST3906, SOT-23,	7		Q94, Q95, Q100, Q101, Q104, Q111, Q112
QD-000108-30	DIODE, 200V, 0.2A, , BAS21, SOT-23, 50NS	1		D87
QD-000110-30	DIODE ZENER, 6.2V, , 0.3W, BZX84C6V2, SOT-23,	3		D21, D24, D28
QD-000113-30	DIODE ZENER, 10V, , 0.3W, BZX84C10, SOT-23,	2		D1, D5
QD-000115-30	DIODE RECTIFIER ULTRAFAST, 600V, 1A, , MURS160T3, SMB, 75NS	3		D58, D86, D100
QD-000116-30	DIODE RECTIFIER ULTRAFAST, 200V, 1A, , MURS120, SMB, 35NS	3		D25, D93, D96
QD-000125-00	DIODE RECTIFIER FAST, 600V, 37A, , DSEI30-06A, TO-247AD, 50NS	2		D77, D84
QD-000137-30	DIODE SCHOTTKY, 15V, 0.01A, , MMBD301LT1, SOT-23, VF MAX 0.6V	1		D3
QD-000163-30	LED RED, , , , SML-010, VOLTAGE REFERENCE	1		LD1
QD-000170-00	BRIDGE RECTIFIER, 600V, 50A, , , IN-LINE	1		BR1
QD-000229-10	DIODE, 250V, 0.25A, , BAV21, DO-35, 50NS	2		D22, D23
QD-000235-00	RECTIFIER DUAL COMMON CATHODE, 500V, 30A, , BYV74W-500, TO-247,	2		D73, D85
QD-000243-00	IGBT, 600V, 32A, 140W, IXGR32N60C, TO-247,	2		Q96, Q97
QD-000248-30	DIODE ZENER, 15V, , 350MW, BZX84C15TR, SOT-23,	2		D6, D27

Power Supply Assembly WP-000266-02 (continued)

QSC Part #	Description	Qty	Comments	Ref erence
RE-.49900-30	4.99, 1 PCNT, 1/8W, THICK FILM, 1206, 200V	2		R359, R360
RE-000002-30	0, , , THICK FILM, 0805, JUMPER	1		R61
RE-000210-NR	NTC, 10 OHMS, 15 AMPS, , , INRUSH LIMIT	1		R324
RE-000230-NR	NTC, 10K, , 15 PCNT, , -4.4 PCNT PER C	1		R28
RE-001003-30	10, 1 PCNT, 1/8W, THICK FILM, 1206, 200V	1		R358
RE-001502-10	15, 5 PCNT, 2W, METAL OXIDE FP, MINI,	1		R350
RE-001505-CC	15, 5 PCNT, 1/2W, CARBON FILM, ,	1		R174
RE-002100-30	21, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R62
RE-002203-10	22, 5 PCNT, 3W, METAL OXIDE FP, ,	1		R372
RE-004701-10	47, 5 PCNT, 2W, METAL OXIDE FP, MINI,	1		R35
RE-004752-30	47.5, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R33
RE-010002-30	100, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	3		R2, R51, R57
RE-010700-30	107, 0.1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R21
RE-033203-30	332, 1 PCNT, 1/4W, THICK FILM, 1210, 200V	1		R180
RE-033205-30	332, 0.1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R16
RE-061901-30	619, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R96
RE-068001-10	680, 5 PCNT, 2W, METAL OXIDE FP, MINI,	1		R175
RE-090901-30	909, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R26
RE-093101-30	931, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R380
RE-113302-30	1.33K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R22
RE-120002-30	2.00K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R6
RE-122103-30	2.21K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	3		R18, R357, R367
RE-126700-30	2.67K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R337
RE-128702-30	2.87K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	2		R1, R3
RE-147502-30	4.75K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	3		R12, R330, R339
RE-156202-30	5.62K, 0.1 PCNT, 1/10W, THICK FILM, 0805, 100V	3		R8, R13, R14
RE-163401-10	6.34K, 1 PCNT, 1/8W, METAL FILM, ,	1		R4
RE-178702-30	7.87K, 0.1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R20
RE-197602-30	9.76K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R338
RE-210003-30	10.0K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	12		R5, R9-R11, R17, R19, R24, R25, R63, R64, R336, R363
RE-212104-30	12.1K, 0.1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R15
RE-212702-30	12.7K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R329
RE-215002-30	15.0K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	2		R48, R366
RE-229402-30	29.4K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	2		R29, R331
RE-230002-10	30K, 5 PCNT, 2W, METAL OXIDE FP, MINI,	5		R351-R356
RE-231601-30	31.6K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R325
RE-239202-30	39.2K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R332
RE-247503-30	47.5K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R323
RE-249900-30	49.9K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	5		R7, R34, R49, R50, R66
RE-263401-30	63.4K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	2		R52, R53
RE-310002-30	100K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	2		R55, R56
RE-315002-30	150K, 1 PCNT, 1/8W, THICK FILM, 1206, 200V	2		R341, R342
RE-339202-30	392K, 1 PCNT, 1/8W, THICK FILM, 1206, 200V	1		R340
RE-348702-30	487K, 1 PCNT, 1/8W, THICK FILM, 1206, 200V	4		R321, R322, R326, R328
SC-063100-PP	PHILLIPS, PANHEAD, #6, 0.625" L, ZINC, TYPE AB	10		
SW-000058-00	RELAY, SPDT, 12VDC COIL, 15A, 240VAC,	1		K1
WC-0.4016-JW	JUMPER, 0.3" TEFLON INSULATION, 16 AWG, 1 CONDUCTOR, , 0.4",	2		W7, W8
WC-000125-00	CABLE ASSY, DC OUTPUT, 10 AWG, 5 CONDUCTOR, PL9.0, 6" L,	1	REF: E4-E8(0-E8,1-E7,2-E6,3-E5,4-E4) FOLK	TERMINAL FACE-UP
WC-000237-00	RIBBON CABLE, FLEX STRIP, 24 AWG, 12 CONDUCTOR, PL6.0II, 11.25" L,	1		
XF-000005-00	BEAD, 100MHZ, 271 OHM,	7		L7-L13
XF-000194-00	TRANSFORMER, SWITCHING, , , , NEW PL6.0, ,	1		T3
XF-000204-00	HOUSEKEEPING, FLYBACK, , , , EVICTOR, ,	1		T2
XF-000206-00	INDUCTOR, COMMON MODE, TOROID, 81UH, EVICTOR, ,	1		L4
XF-000208-00	INDUCTOR, SERIES RESONANT, TOROID, 1.0UH, , ,	1		L6

Power Supply Assembly (QSC part # WP-000262-00)

Where used: PowerLight 6.0^{PFC}, 120 volts

This is a subassembly of the Chassis Assembly, WP-000260-00; two per amplifier.

Part Number	Description	Qty	Comments	Ref Des
CA-147100-BD	470PF, 10 PCNT, 100V, CERAMIC Y5F, DISC,	4		C1-C4
CA-210007-00	0.001UF, 5 PCNT, 500V, MICA, DIPPED,	4		C27, C29, C33, C35
CA-222004-00	0.0022UF, 5 PCNT, 500V, MICA, DIPPED,	2		C40, C41
CA-247001-00	0.0047UF, 5 PCNT, 500V, MICA, DIPPED,	2		C44, C45
CA-310001-10	0.01UF, 10 PCNT, 100V, FILM, DIPPED,	1		C7
CA-347400-BP	0.047UF, 10 PCNT, 400V, FILM, DIPPED,	4	C13,18 NEED TO BE LAID FLAT ON THE PCB	C13, C18, C23, C37
CA-410009-00	0.1UF, 5 PCNT, 250V, FILM, WRAPPED,	1	PREP AT VERTICAL POSITION /USE .050 SPACER	C20
CA-422001-10	0.22UF, 5 PCNT, 50V, FILM, DIPPED, LOW PROFILE	4		C47-C50
CA-510001-10	1.0UF, 20 PCNT, 50V, CERAMIC Z5U, DIPPED,	4		C5, C9, C14, C16
CA-550001-00	5.0UF, 10 PCNT, 250V, FILM, WRAPPED, HIGH FREQ LOW ESR	2	USE .1000 SPACER	C43, C46
CA-568001-00	6.8UF, 10 PCNT, 400V, FILM, WRAPPED,	4	USE .1000 SPACER (PREP AT VERTICAL POSITION)	C21, C22, C24, C31
CA-610004-00	10UF, 20 PCNT, 25V, ELECTROLYTIC, , LOW PROFILE	2		C6, C10
CA-922002-00	22000UF, 20 PCNT, 50V, ELECTROLYTIC, ,	4		C28, C32, C42, C36
CH-000076-00	HEAT SINK, PS, FET, PL9.0,	1		
CH-000077-00	HEAT SINK, DIODE, , PL9.0,	1		
CH-000089-00	CLAMP, DIODE, 1 FINGER, PL9.0,	12		
CO-000074-00	HEADER, 0.1" CENTERS, 8 POS (1X8), MALE, RAMP LOCK	1		J202
CO-000122-00	HEADER, 0.1" CENTERS, 8 POS (1X8), MALE, RIGHT ANGLE RAMP LOCK	1		J200
HW-000007-HW	FUSE CLIP, PC MOUNT, , , TIN PLATED BRASS, 5MM	2	F1	
HW-000006-SO	SPACER, 0.312" ROUND, #8, 0.470" L, ALUMINUM, SWAGE	2	APPLY THE SWAGE TOOL, INSTALL ON TOP SIDE	
HW-000000-PS	STUD, PEM STYLE, #8-32, 0.500" L, TIN PLATED BRONZE,	2	E2,3	
IC-000064-00	DRIVER, MOSFET, 4452BN, ,	2		U1, U3
MS-000113-00	FUSE, 1A, 250V, 5MM X 20MM, SLO-BLO	1		F1
NW-060000-PI	PRESS-IN NUT, #6-32, PCB MOUNT, CARBON STEEL,	2	PL-000087-00, INSTALL ON BOTTOM SIDE	
NW-062010-FW	FLAT WASHER, #6, , , ZINC PLATE	2		
NW-180001-03	FLAT WASHER, 0.177", , STAINLESS STEEL,	12		
PC-000173-00	POWER SUPPLY, PL9.0, ,	1		
PL-000010-00	BUMPER, ADHESIVE BACKED, 0.5" X 0.5", POLYURETHANE, BLACK,	3		
PL-000059-00	INSULATOR, TRANSISTOR, 1.125" X 2", MICA, ,	2	D1,2,D7,8	
PL-000085-00	INSULATOR, TRANSISTOR, 1.525" X 0.950", ALUMINA, ,	5	CH-000077-00	
PL-000086-00	INSULATOR, TRANSISTOR, 2.875" X 0.950", ALUMINA, ,	1		
PL-000087-00	CARD GUIDE, 0.063" PCB, 2.0" HEIGHT, , , VERTICAL	2	WP-000174-00, MATCH THE LOCATION ON THE SILK SCREEN	
PL-000089-00	INSULATOR, RECTIFIER HEAT SINK, PL9.0, FISH PAPER, ,	1		
PL-000090-00	INSULATOR, TRANSFORMER/INDUCTOR, PL9.0, FISH PAPER, ,	2		
PL-000134-00	GROMMET, VIBRATION DAMPING, 0.375" OD, NEOPRENE, ,	1		
PL-000139-00	INSULATOR, POWER SUPPLY HEAT SINK, PL9.0, , ,	1		
PL-903125-SP	SPACER, ROUND, 0.047"ID X 0.156"OD X 0.125"L, NYLON, ,	2	W8	
QD-000022-QD	DIODE ZENER, 18V, , 1W, 1N4746A, D0-41,	4		D3-D6
QD-000023-QD	DIODE ZENER, 180V, , 1.5W, 1N5955A, D0-41,	8		D30-D37
QD-000065-10	TRANSISTOR PNP, 300V, 0.5A, 1.5W, MPSA92, T0-92,	1		Q6
QD-000117-00	DIODE RECTIFIER FAST, 600V, 60A, , DSEI60-06A, T0-247AD, 35NS	2		D19, D20
QD-000118-00	BRIDGE RECTIFIER, 1000V, 1A, , , DIP,	1		BR1
QD-000120-20	DIODE RECTIFIER ULTRAFAST, 200V, 1A, , MUR120RL, D0-41, 35NS	3		D9, D10, D11
QD-000125-00	DIODE RECTIFIER FAST, 600V, 37A, , DSEI30-06A, T0-247AD, 50NS	2		D21, D22
QD-000126-00	DIODE RECTIFIER FAST, 600V, 75A, , DSEI120-06A, T0-247AD, 50NS	4		D12, D14, D16, D17
QD-000164-10	TRANSISTOR NPN, 200V, 0.5A, 0.625W, MPSA43, T0-92,	1		Q5
QD-000228-00	DIODE, 600V, 60A, , 60EPS08, T0-247AD, PL6.0	4		D1, D2, D7, D8
QD-004004-DX	DIODE, 400V, 1A, , 1N4004, D0-41, 2US	1		D18
QD-004148-DX	DIODE, 75V, 0.075A, , 1N4148, D0-35, 4NS	2		D24, D23
QD-004753-ZT	DIODE ZENER, 36V, , 1W, 1N4753A, D0-41,	2		D13, D15
RE-.24001-00	2.4, 5 PCNT, 5W, METAL OXIDE FP, , NON-INDUCTIVE	1	USE .050 SPACER	R15
RE-.47501-10	4.75, 1 PCNT, 1/4W, METAL FILM, ,	4		R5-R8
RE-001003-00	10, 10 PCNT, 5W, WIRE WOUND, VERTICAL, NON-INDUCTIVE	8		R16, R18, R22, R29, R30, R32-R34
RE-003305-DM	33, 5 PCNT, 1W, METAL OXIDE FP, ,	2		R13, R14
RE-010003-10	100, 1 PCNT, 1/8W, METAL FILM, ,	1		R17
RE-110001-AM	1.00K, 1 PCNT, 1/8W, METAL FILM, ,	2		R1, R2
RE-147005-DM	4.7K, 5 PCNT, 1W, METAL OXIDE FP, ,	4		R35, R36, R37, R38
RE-210001-BM	10.0K, 1 PCNT, 1/4W, METAL FILM, ,	4		R10, R11, R12, R9

Power Supply Assembly WP-000262-00 (continued)

QSC Part #	Description	Qty	Comments	Reference
RE-224902-10	24.9K, 1 PCNT, 1/4W, METAL FILM, ,	1		R28
RE-230103-10	30.1K, 1 PCNT, 1/4W, METAL FILM, ,	2		R39, R40
RE-247003-00	47K, 5 PCNT, 2W, METAL OXIDE FP, ,	1	(TWO DIFF. PREP) PREP AT VERTICAL POSITION /USE .050 SPACER R31	
RE-247003-00	47K, 5 PCNT, 2W, METAL OXIDE FP, ,	2	TWO DIFF. PREP	R4, R3
RE-290900-10	90.9K, 1 PCNT, 1/4W, METAL FILM, ,	2		R41, R42
RE-310005-BC	100K, 5 PCNT, 1/4W, CARBON FILM, ,	2		R19, R23
RE-312101-BM	121K, 1 PCNT, 1/4W, METAL FILM, ,	2		R44, R45
RE-333201-10	332K, 1 PCNT, 1/3W, METAL FILM, ,	2		R21, R25
RE-330901-10	309K, 1 PCNT, 1/4W, METAL FILM, ,	1		R43
RE-347503-10	475K, 1 PCNT, 1/4W, METAL FILM, ,	2		R26, R27
SC-060060-PS	PHILLIPS, SEMS EXTERNAL TOOTH, #6-32, 0.375" L, ZINC,	8		
SC-060061-PP	PHILLIPS, PANHEAD, #6-32, 0.375" L, BLACK,	12	T1,L1 GET THIS SCREW FROM TOUCH UP T22	
SC-061081-PP	PHILLIPS, PANHEAD, #6, 0.375" L, ZINC, TYPE B	5		
SC-060121-PP	PHILLIPS, PANHEAD, #6-32, 0.75" L, BLACK,	2		
SC-080122-HC	HEX, CAP, #8-32, 0.75" L, BLACK,	12		D1, D2, D7, D8, D12, D14, D16, D17, D19-D22
WC-0.3514-JW	JUMPER, BARE, 14 AWG SOLID, 1 CONDUCTOR, , 0.35" L,	2		W7, W9
WC-000091-00	JUMPER, COPPER FOIL AND KAPTON, 0.3" X 0.003", 1 CONDUCTOR, PL9.0, 4.9" L,	1	ROUTE THRU C21,22	W5
WC-000092-00	JUMPER, COPPER FOIL AND KAPTON, 0.3" X 0.003", 1 CONDUCTOR, PL9.0, 1.4" L,	4	REF ASSY DRAWING	W1-W4
WC-000093-00	JUMPER, COPPER FOIL AND KAPTON, 0.3" X 0.003", 1 CONDUCTOR, PL9.0, 4.3" L,	1	ROUTE THRU C21,22	W6
WC-000106-00	CABLE ASSY, 60 DEGREE PTC, 22 AWG, 2 CONDUCTOR, PL9.0, 8" L,	2	FROM HEATSINK TO J202	
WC-000109-00	RIBBON CABLE ASSY, GATE DRIVER, 24 AWG, 8 CONDUCTOR, PL9.0, 16" L,	1	FROM J200 TO J101 ON CONTROL PCB	
WC-000125-00	CABLE ASSY, DC OUTPUT, 10 AWG, 5 CONDUCTOR, PL9.0, 6" L,	1	E5-9(0-E9,1-E8,2-E7,3-E6,4-E5) FOLK TERMINAL FACE-UP	
WC-000130-00	CABLE ASSY, POWER SUPPLY/AMP, 24 AWG, 8 CONDUCTOR, PL9.0, 9.5" L,	1	FROM CONTROL PCB J100 TO AMP PCB	
WC-000133-00	JUMPER, TEFLON INSULATION, 16 AWG SOLID, 1 CONDUCTOR, , 1.75" L,	2	T2,3	
WC-000137-00	JUMPER, PVC INSULATION, 14 AWG, 1 CONDUCTOR, , 1.3" L,	3		W11-W13
WC-2.5218-JW	JUMPER, TEFLON INSULATION, 18 AWG, 1 CONDUCTOR, , 2.5" L, 0.250" LEAD LENGTH	1		W8
WP-000056-00	FET ASSY, MATCHED, PL6.0/PL9.0, ,	1	Q1-4 USE THE SCREWS IN THE PACKAGE TO ASSEMBLE THE HEATSINK TO PCB	
WP-000263-00	PCB ASSY, PS CONTROLLER, PL6.0, ,	1		
XF-000095-00	TRANSFORMER, SWITCHING, 100KHZ, , 3000W, PL6.0, ,	1		T1
XF-000041-00	INDUCTOR, POWER, , 45UH, PL9.0, 120V,	1		L1
XF-000042-00	INDUCTOR, COMMON MODE, TOROID, , PL9.0, ,	1		L2
XF-000077-00	INDUCTOR, CURRENT SENSE, TOROID, 100TURN, PL9.0, ,	2	CUT AND REMOVE GRAY WIRES	T2, T3

Power Supply Assembly (QSC part # WP-000262-02)

Where used: PowerLight 6.0^{PFC}, 230 volts

This is a subassembly of the Chassis Assembly, WP-000260-02; two per amplifier.

QSC Part #	Description	Qty	Comments	Reference
CA-147100-BD	470PF, 10 PCNT, 100V, CERAMIC Y5F, DISC,	4		C1-C4
CA-210007-00	0.001UF, 5 PCNT, 500V, MICA, DIPPED,	4		C27, C29, C35, C33
CA-222004-00	0.0022UF, 5 PCNT, 500V, MICA, DIPPED,	2		C40, C41
CA-247001-00	0.0047UF, 5 PCNT, 500V, MICA, DIPPED,	2		C44, C45
CA-310001-10	0.01UF, 10 PCNT, 100V, FILM, DIPPED,	1		C7
CA-347400-BP	0.047UF, 10 PCNT, 400V, FILM, DIPPED,	4	C13,18 NEED TO BE LAID FLAT ON THE PCB	C13, C18, C23, C37
CA-410009-00	0.1UF, 5 PCNT, 250V, FILM, WRAPPED,	1	PREP AT VERTICAL POSITION /USE .050 SPACER	C20
CA-422001-10	0.22UF, 5 PCNT, 50V, FILM, DIPPED, LOW PROFILE	4		C47-C50
CA-510001-10	1.0UF, 20 PCNT, 50V, CERAMIC Z5U, DIPPED,	4		C5, C9, C14, C16
CA-550001-00	5.0UF, 10 PCNT, 250V, FILM, WRAPPED, HIGH FREQ LOW ESR	2	USE .1000 SPACER	C43, C46
CA-560001-00	6.8UF, 10 PCNT, 400V, FILM, WRAPPED,	4	USE .1000 SPACER (PREP AT VERT. POSITION)	C21, C22, C24, C31
CA-610004-00	10UF, 20 PCNT, 25V, ELECTROLYTIC, , LOW PROFILE	2		C6, C10
CA-922002-00	22000UF, 20 PCNT, 50V, ELECTROLYTIC, ,	4		C28, C32, C36, C42
CH-000076-00	HEAT SINK, PS, FET, PL9.0,	1		
CH-000077-00	HEAT SINK, DIODE, , PL9.0,	1		
CH-000089-00	CLAMP, DIODE, 1 FINGER, PL9.0,	12		
CO-000074-00	HEADER, 0.1" CENTERS, 8 POS (1X8), MALE, RAMP LOCK	1		J202
CO-000122-00	HEADER, 0.1" CENTERS, 8 POS (1X8), MALE, RIGHT ANGLE RAMP LOCK	1		J200
HW-000007-HW	FUSE CLIP, PC MOUNT, , , TIN PLATED BRASS, 5MM	2	F1	

Power Supply Assembly WP-000262-02 (continued)

QSC Part #	Description	Qty	Comments	Reference
HW-080006-S0	SPACER, 0.312" ROUND, #8, 0.470" L, ALUMINUM, SWAGE	2	APPLY THE SWAGE TOOL, INSTALL ON TOP SIDE	
HW-080000-PS	STUD, PEM STYLE, #8-32, 0.500" L, TIN PLATED BRONZE,	2	E2,3	
IC-000064-00	DRIVER, MOSFET, 4452BN, ,	2		U1, U3
MS-000113-00	FUSE, 1A, 250V, 5MM X 20MM, SLO-BLO	1		F1
NW-060000-PI	PRESS-IN NUT, #6-32, PCB MOUNT, CARBON STEEL,	2	PL-000087-00, INSTALL ON BOTTOM SIDE	
NW-062010-FW	FLAT WASHER, #6, , , ZINC PLATE	2		
NW-180001-03	FLAT WASHER, 0.177" , , STAINLESS STEEL,	12		
PC-000173-00	POWER SUPPLY, PL9.0, ,	1		
PL-000010-00	BUMPER, ADHESIVE BACKED, 0.5" X 0.5", POLYURETHANE, BLACK,	3		
PL-000059-00	INSULATOR, TRANSISTOR, 1.125" X 2", MICA, ,	2	D1, D2, D7, D8	
PL-000085-00	INSULATOR, TRANSISTOR, 1.525" X 0.950", ALUMINA, ,	5		
PL-000086-00	INSULATOR, TRANSISTOR, 2.875" X 0.950", ALUMINA, ,	1		
PL-000087-00	CARD GUIDE, 0.063" PCB, 2.0" HEIGHT, , , VERTICAL	2	WP-000174-00, MATCH THE LOCATION ON THE SILK SCREEN	
PL-000089-00	INSULATOR, RECTIFIER HEAT SINK, PL9.0, FISH PAPER, ,	1		
PL-000090-00	INSULATOR, TRANSFORMER/INDUCTOR, PL9.0, FISH PAPER, ,	2		
PL-000134-00	GROMMET, VIBRATION DAMPING, 0.375" OD, NEOPRENE, ,	1		
PL-000139-00	INSULATOR, POWER SUPPLY HEAT SINK, PL9.0, , ,	1		
PL-903125-SP	SPACER, ROUND, 0.047"ID X 0.156"OD X 0.125"L, NYLON, ,	2	W8	
QD-000022-QD	DIODE ZENER, 18V, , 1W, 1N4746A, D0-41,	4		D3-D6
QD-000023-QD	DIODE ZENER, 180V, , 1.5W, 1N5955A, D0-41,	8		D30-D37
QD-000065-10	TRANSISTOR PNP, 300V, 0.5A, 1.5W, MPSA92, T0-92,	1		Q6
QD-000117-00	DIODE RECTIFIER FAST, 600V, 60A, , DSEI60-06A, T0-247AD, 35NS	2		D19, D20
QD-000118-00	BRIDGE RECTIFIER, 1000V, 1A, , , DIP,	1		BR1
QD-000120-20	DIODE RECTIFIER ULTRAFAST, 200V, 1A, , MUR120RL, D0-41, 35NS	3		D9-D11
QD-000125-00	DIODE RECTIFIER FAST, 600V, 37A, , DSEI30-06A, T0-247AD, 50NS	2		D21, D22
QD-000126-00	DIODE RECTIFIER FAST, 600V, 75A, , DSEI120-06A, T0-247AD, 50NS	4		D12, D14, D16, D17
QD-000164-10	TRANSISTOR NPN, 200V, 0.5A, 0.625W, MPSA43, T0-92,	1		Q5
QD-000182-00	DIODE, 1200V, 60A, , 60EPS12, T0-247AD,	4		D1, D2, D7, D8
QD-004004-DX	DIODE, 400V, 1A, , 1N4004, D0-41, 2US	1		D18
QD-004148-DX	DIODE, 75V, 0.075A, , 1N4148, D0-35, 4NS	2		D23, D24
QD-004753-ZT	DIODE ZENER, 36V, , 1W, 1N4753A, D0-41,	2		D13, D15
RE-.24001-00	2.4, 5 PCNT, 5W, METAL OXIDE FP, , NON-INDUCTIVE	1	USE .050 SPACER	R15
RE-.47501-10	4.75, 1 PCNT, 1/4W, METAL FILM, ,	4		R5-R8
RE-001003-00	10, 10 PCNT, 5W, WIRE WOUND, VERTICAL, NON-INDUCTIVE	8		R16, R18, R22, R29, R30, R32-R34
RE-003305-DM	33, 5 PCNT, 1W, METAL OXIDE FP, ,	2		R13, R14
RE-010003-10	100, 1 PCNT, 1/8W, METAL FILM, ,	1		R17
RE-110001-AM	1.00K, 1 PCNT, 1/8W, METAL FILM, ,	2		R1, R2
RE-147005-DM	4.7K, 5 PCNT, 1W, METAL OXIDE FP, ,	4		R35-R38
RE-210001-BM	10.0K, 1 PCNT, 1/4W, METAL FILM, ,	4		R9-R12
RE-212701-BM	12.7K, 1 PCNT, 1/4W, METAL FILM, ,	1		R28
RE-230103-10	30.1K, 1 PCNT, 1/4W, METAL FILM, ,	2		R39, R40
RE-247003-00	47K, 5 PCNT, 2W, METAL OXIDE FP, ,	1	(TWO DIFFERENT PREP) PREP AT VERTICAL POSITON / USE .050 SPACER R31	
RE-247003-00	47K, 5 PCNT, 2W, METAL OXIDE FP, ,	2	(TWO DIFFERENT PREP)	R3, R4
RE-290900-10	90.9K, 1 PCNT, 1/4W, METAL FILM, ,	2		R41, R42
RE-312101-BM	121K, 1 PCNT, 1/4W, METAL FILM, ,	2		R44, R45
RE-320001-10	200K, 1 PCNT, 1/4W, METAL FILM, ,	2		R19, R23
RE-330901-10	309K, 1 PCNT, 1/4W, METAL FILM, ,	1		R43
RE-347503-10	475K, 1 PCNT, 1/4W, METAL FILM, ,	2		R26, R27
RE-366501-10	665K, 1 PCNT, 1/4W, METAL FILM, ,	2		R21, R25
SC-060060-PS	PHILLIPS, SEMS EXTERNAL TOOTH, #6-32, 0.375" L, ZINC,	8	REF: Q1-4	
SC-060061-PP	PHILLIPS, PANHEAD, #6-32, 0.375" L, BLACK,	12	T1,L1 GET THIS SCREW FROM TOUCH UP T22	
SC-060121-PP	PHILLIPS, PANHEAD, #6-32, 0.75" L, BLACK,	2		
SC-061081-PP	PHILLIPS, PANHEAD, #6, 0.375" L, ZINC, TYPE B	5		
SC-080122-HC	HEX, CAP, #8-32, 0.75" L, BLACK,	12	D1,2,D7,8,12,D14,16,17,D19-22	
WC-000091-00	JUMPER, COPPER FOIL AND KAPTON, 0.3" X 0.003", 1 CONDUCTOR, PL9.0, 4.9" L,	1	ROUTE THRU C21,22	W5
WC-000092-00	JUMPER, COPPER FOIL AND KAPTON, 0.3" X 0.003", 1 CONDUCTOR, PL9.0, 1.4" L,	4	REF ASSY DRAWING	W1-W4
WC-000093-00	JUMPER, COPPER FOIL AND KAPTON, 0.3" X 0.003", 1 CONDUCTOR, PL9.0, 4.3" L,	1	ROUTE THRU C21,22	W6
WC-000106-00	CABLE ASSY, 60 DEGREE PTC, 22 AWG, 2 CONDUCTOR, PL9.0, 8" L,	2	FROM HEATSINK TO J202	
WC-000109-00	RIBBON CABLE ASSY, GATE DRIVER, 24 AWG, 8 CONDUCTOR, PL9.0, 16" L,	1		
WC-000125-00	CABLE ASSY, DC OUTPUT, 10 AWG, 5 CONDUCTOR, PL9.0, 6" L,	1	E5-9(0-E9,1-E8,2-E7,3-E6,4-E5) FOLK TERMINAL FACE-UP	
WC-000127-00	JUMPER, PVC INSULATION, 14 AWG SOLID, 1 CONDUCTOR, , 1.75" L,	1		W10
WC-000130-00	CABLE ASSY, POWER SUPPLY/AMP, 24 AWG, 8 CONDUCTOR, PL9.0, 9.5" L,	1	FROM CONTROL PCB J100 TO AMP PCB	

Power Supply Assembly WP-000262-02 (continued)

QSC Part #	Description	Qty	Comments	Reference
WC-000133-00	JUMPER, TEFLON INSULATION, 16 AWG SOLID, 1 CONDUCTOR, , 1.75" L,	2	T2,3	
WC-000137-00	JUMPER, PVC INSULATION, 14 AWG, 1 CONDUCTOR, , 1.3" L,	3		W12-W13
WC-2.5218-JW	JUMPER, TEFLON INSULATION, 18 AWG, 1 CONDUCTOR, , 2.5" L, 0.250" LEAD LENGTH	1		W8
WP-000056-00	FET ASSY, MATCHED, PL6.0/PL9.0, ,	1	Q1-4 USE THE SCREWS IN THE PACKAGE TO ASSEMBLE THE HEATSINK TO PCB	
WP-000263-00	PCB ASSY, PS CONTROLLER, PL6.0, ,	1		
XF-000042-00	INDUCTOR, COMMON MODE, TOROID, , PL9.0, ,	1		L2
XF-000047-00	INDUCTOR, POWER, , 45UH, PL9.0, 240V,	1		L1
XF-000077-00	INDUCTOR, CURRENT SENSE, TOROID, 100TURN, PL9.0, ,	2	CUT AND REMOVE GRAY WIRES	T2, T3
XF-000095-00	TRANSFORMER, SWITCHING, 100KHZ, , 3000W, PL6.0, ,	1		T1

Power Supply Controller Assembly (QSC part # WP-000263-00)

Where used: PowerLight 6.0^{PFC}, 120 and 230 volts

This is a subassembly of the Power Supply Assembly, WP-000262-00 or WP-000262-02; two per amplifier.

QSC Part #	Description	Qty	Comments	Reference
CA-110002-30	100PF, 5 PCNT, 50V, CERAMIC NPO, 0805,	1		C33
CA-122002-30	220PF, 5 PCNT, 50V, CERAMIC NPO, 0805,	1		C26
CA-147004-30	470PF, 5 PCNT, 50V, CERAMIC NPO, 0805,	2		C43, C73
CA-210006-30	0.001UF, 2 PCNT, 100V, CERAMIC NPO, 0805,	4		C3, C35, C36, C37
CA-222050-CP	0.0022UF, 5 PCNT, 50V, FILM, DIPPED, NON-AI	1	USE .050 SPACER	C41
CA-310001-10	0.01UF, 10 PCNT, 100V, FILM, DIPPED,	1		C42
CA-347002-30	0.047UF, 20 PCNT, 50V, CERAMIC Z5U, 0805,	58		C1, C2, C5, C6, C11, C13, C18-C25, C27, C29, C31, C32, C38, C39, C44, C46, C48, C50-C53, C55-C64, C67-C69, C77, C80-C90
CA-347004-30	0.047UF, 20 PCNT, 50V, CERAMIC X7R, 1206,	1		C65
CA-410002-10	0.1UF, 5 PCNT, 100V, FILM, DIPPED,	1		C47
CA-410006-30	0.1UF, 10 PCNT, 50V, CERAMIC X7R, 1206,	2		C7, C8
CA-510001-10	1.0UF, 20 PCNT, 50V, CERAMIC Z5U, DIPPED,	3		C30, C34, C49
CA-610006-30	10UF, 20 PCNT, 16V, ELECTROLYTIC, SMT,	7		C4, C14, C40, C45, C70, C71, C93
CA-622002-30	22UF, 20 PCNT, 25V, TANTALUM, SMT,	5		C9, C10, C15, C16, C17
CA-633001-00	33UF, 20 PCNT, 400V, ELECTROLYTIC, ,	1	USE .050 SPACER	C12
CO-000074-00	HEADER, 0.1" CENTERS, 8 POS (1X8), MALE, RAMP LOCK	2	REF:J100,101	
CO-000157-00	HEADER, 0.1" CENTERS, 8 POS (1X8), MALE, RIGHT ANGLE	2		J102, J103
CO-000158-00	HEADER, 0.1" CENTERS, 4 POS (1X4), MALE, RIGHT ANGLE	2		J104, J105
IC-000031-00	OPTO ISOLATOR, , 4N30, ,	1		U22
IC-000042-00	VOLTAGE REGULATOR, +5V, MC7805CT, ,	1		U9
IC-000049-00	OPTO COUPLER, , HCPL2200, ,	2		U13, U14
IC-000050-00	OPTO COUPLER, , 6N137, ,	1		U1
IC-000051-00	OPTO ISOLATOR, , MOC8101, ,	1		U5
IC-000053-30	TIMER, DUAL, LM556, ,	1		U2
IC-000054-30	COMPARATOR, QUAD, LM339AM, SMT,	3		U16, U19, U21
IC-000055-30	REGULATOR, POWER FACTOR, UC3854B, ,	1		U18
IC-000056-30	DRIVER, MOSFET, TC4427, SMT,	1		U11
IC-000057-30	COUNTER, RIPPLE, 74HC4024, SMT,	1		U12
IC-000059-00	TOP SWITCH, , TOP202, ,	1		U7
IC-000060-00	OSCILLATOR, CLOCK, 6.000 MHZ, ,	1		U10
IC-000063-30	OPAMP, QUAD, MC33074, ,	2		U17, U20
IC-000085-00	VOLTAGE REGULATOR, +12V, LM2937ET-12, , LOW DROP OUT	2		U4, U8
PC-000174-00	POWER SUPPLY CONTROLLER, PL9.0, ,	1		
PD-000036-30	POWER SUPPLY SIGNAL MANAGEMENT, GAL16V8, PL9.0, ,	1		U15
PT-210000-AT	TRIM, 1K, 20 PCNT, 0.15W, ,	1		VR4
PT-220000-AT	TRIM, 2K, 20 PCNT, 0.15W, ,	1		VR1
PT-250000-AT	TRIM, 5K, 20 PCNT, 0.15W, ,	1		VR3
PT-410000-AT	TRIM, 100K, 20 PCNT, 0.15W, ,	1		VR2

Power Supply Controller Assembly WP-000263-00 (continued)

QSC Part #	Description	Qty	Comments	Reference
QD-000102-30	DIODE, 75V, 0.075A, , IMBD4148, SOT-23, 4NS	5		D1, D6, D11, D13, D15
QD-000103-30	TRANSISTOR NPN, 40V, 0.2A, 0.2W, MMST3904, SOT-23,	7		Q3-Q5, Q7-Q10
QD-000104-30	TRANSISTOR PNP, 40V, 0.2A, 0.2W, MMST3906, SOT-23,	3		Q2, Q12, Q14
QD-000114-30	DIODE ZENER, 150V, , 600W PEAK, P6SMB150AT3, SMB,	1		D3
QD-000115-30	DIODE RECTIFIER ULTRAFAST, 600V, 1A, , MURS160T3, SMB, 75NS	2		D4, D5
QD-000116-30	DIODE RECTIFIER ULTRAFAST, 200V, 1A, , MURS120, SMB, 35NS	4		D2, D8-D10
QD-000136-30	DIODE ZENER, 7.5V, , 0.3W, BZX84C7V5, SOT-23,	1		D7
QD-000163-30	LED RED, , , , SML-010, VOLTAGE REFERENCE	1		LD1
QD-000168-30	DIODE SCHOTTKY, 70V, 0.2A, , BAS70-04, SOT-23,	2		D12, D14
RE-007502-30	75, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R72
RE-018201-30	182, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R15
RE-020002-30	200, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R2
RE-033205-30	332, 0.1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R18
RE-090901-30	909, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R37
RE-110002-30	1.00K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	15		R4, R19, R20, R24, R25, R35, R43, R46, R47, R51, R54, R75, R80, R84, R98
RE-110502-30	1.05K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	2		R22, R86
RE-115002-30	1.50K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	4		R7, R16, R17, R70
RE-120002-30	2.00K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R48
RE-124902-30	2.49K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	2		R50, R97
RE-130102-30	3.01K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	2		R13, R14
RE-134802-30	3.48K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R68
RE-147502-30	4.75K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	8		R23, R32-R34, R38, R60, R90, R92
RE-152301-30	5.23K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R29
RE-160401-30	6.04K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	4		R36, R44, R45, R79
RE-163402-30	6.34K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R58
RE-175002-30	7.50K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R5
RE-178702-30	7.87K, 0.1 PCNT, 1/10W, THICK FILM, 0805, 100V	2		R57, R83
RE-210003-30	10.0K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	9		R21, R31, R39, R73, R91, R93-R96
RE-212702-30	12.7K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	3		R41, R52, R78
RE-215002-30	15.0K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	4		R82, R85, R87, R101
RE-221502-30	21.5K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	7		R10, R56, R59, R65, R71, R74, R81
RE-224901-30	24.9K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	2		R9, R11
RE-227401-30	27.4K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R28
RE-239203-30	39.2K, 0.1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R55
RE-245302-30	45.3K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R3
RE-247503-30	47.5K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	2		R69, R77
RE-310002-30	100K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	9		R6, R8, R26, R27, R30, R66, R67, R76, R88
RE-314001-30	140K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R12
RE-375001-30	750K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R40
XF-000037-00	TRANSFORMER, HOUSEKEEPING, , , , PL9.0, , POWER SUPPLY	1		T1

Power Supply Assembly (QSC part # WP-000173-00)

Where used: PowerLight 9.0^{PFC}, 120 volts.

This is a subassembly of the Chassis Assembly, WP-000170-00; two per amplifier.

QSC Part #	Description	Qty	Comments	Reference
CA-147100-BD	470PF, 10 PCNT, 100V, CERAMIC Y5F, DISC,	4		C1-C4
CA-210007-00	0.001UF, 5 PCNT, 500V, MICA, DIPPED,	4		C27, C29, C33, C35
CA-222004-00	0.0022UF, 5 PCNT, 500V, MICA, DIPPED,	2		C40, C41
CA-247001-00	0.0047UF, 5 PCNT, 500V, MICA, DIPPED,	2		C44, C45
CA-310001-10	0.01UF, 10 PCNT, 100V, FILM, DIPPED,	1		C7
CA-347400-BP	0.047UF, 10 PCNT, 400V, FILM, DIPPED,	4	C13,18 NEED TO BE LAID FLAT ON THE PCB	C13, C18, C23, C37
CA-410009-00	0.1UF, 5 PCNT, 250V, FILM, WRAPPED,	1	PREP AT VERTICAL POSITION /USE .050 SPACER	C20
CA-422001-10	0.22UF, 5 PCNT, 50V, FILM, DIPPED, LOW PROFILE	4		C47-C50
CA-510001-10	1.0UF, 20 PCNT, 50V, CERAMIC Z5U, DIPPED,	4		C5, C9, C14, C16
CA-550001-00	5.0UF, 10 PCNT, 250V, FILM, WRAPPED, HIGH FREQ LOW ESR	2	USE .1000 SPACER	C43, C46
CA-568001-00	6.8UF, 10 PCNT, 400V, FILM, WRAPPED,	4	USE .1000 SPACER (PREP AT VERTICAL POSITION)	C22, C24, C31, C21
CA-610004-00	10UF, 20 PCNT, 25V, ELECTROLYTIC, , LOW PROFILE	2		C6, C10
CA-922002-00	22000UF, 20 PCNT, 50V, ELECTROLYTIC, ,	8		C26, C28, C30, C32, C34, C36, C42, C39
CH-000076-00	HEAT SINK, PS, FET, PL9.0,	1		
CH-000077-00	HEAT SINK, DIODE, , PL9.0,	1		
CH-000089-00	CLAMP, DIODE, 1 FINGER, PL9.0,	12		
CO-000074-00	HEADER, 0.1" CENTERS, 8 POS (1X8), MALE, RAMP LOCK	1		J202
CO-000122-00	HEADER, 0.1" CENTERS, 8 POS (1X8), MALE, RIGHT ANGLE RAMP LOCK	1		J200
HW-000007-HW	FUSE CLIP, PC MOUNT, , , TIN PLATED BRASS, 5MM	2	F1	
HW-000006-SO	SPACER, 0.312" ROUND, #8, 0.470" L, ALUMINUM, SWAGE	2	APPLY THE SWAGE TOOL, INSTALL ON TOP SIDE	
HW-000000-PS	STUD, PEM STYLE, #8-32, 0.500" L, TIN PLATED BRONZE,	2	E2,E3	
IC-000064-00	DRIVER, MOSFET, 4452BN, ,	2		U1, U3
MS-000113-00	FUSE, 1A, 250V, 5MM X 20MM, SLO-BLO	1		F1
NW-060000-PI	PRESS-IN NUT, #6-32, PCB MOUNT, CARBON STEEL,	2	PL-000087-00, INSTALL ON BOTTOM SIDE	
NW-062010-FW	FLAT WASHER, #6, , , ZINC PLATE	2		
NW-180001-03	FLAT WASHER, 0.177", , STAINLESS STEEL,	12		
PC-000173-00	POWER SUPPLY, PL9.0, ,	1		
PL-000010-00	BUMPER, ADHESIVE BACKED, 0.5" X 0.5", POLYURETHANE, BLACK,	3		
PL-000059-00	INSULATOR, TRANSISTOR, 1.125" X 2", MICA, ,	2	D1,2,D7,8	
PL-000085-00	INSULATOR, TRANSISTOR, 1.525" X 0.950", ALUMINA, ,	5		
PL-000086-00	INSULATOR, TRANSISTOR, 2.875" X 0.950", ALUMINA, ,	1		
PL-000087-00	CARD GUIDE, 0.063" PCB, 2.0" HEIGHT, , , VERTICAL	2	WP-000174-00, MATCH THE LOCATION ON THE SILK SCREEN	
PL-000089-00	INSULATOR, RECTIFIER HEAT SINK, PL9.0, FISH PAPER, ,	1		
PL-000090-00	INSULATOR, TRANSFORMER/INDUCTOR, PL9.0, FISH PAPER, ,	2		
PL-000134-00	GROMMET, VIBRATION DAMPING, 0.375" OD, NEOPRENE, ,	1		
PL-000139-00	INSULATOR, POWER SUPPLY HEAT SINK, PL9.0, , ,	1		
PL-903125-SP	SPACER, ROUND, 0.047"ID X 0.156"OD X 0.125"L, NYLON, ,	2	W8	
QD-000022-QD	DIODE ZENER, 18V, , 1W, 1N4746A, D0-41,	4		D3-D6
QD-000023-QD	DIODE ZENER, 180V, , 1.5W, 1N5955A, D0-41,	8		D30-D37
QD-000065-10	TRANSISTOR PNP, 300V, 0.5A, 1.5W, MPSA92, T0-92,	1		Q6
QD-000117-00	DIODE RECTIFIER FAST, 600V, 60A, , DSEI60-06A, T0-247AD, 35NS	2		D19, D20
QD-000118-00	BRIDGE RECTIFIER, 1000V, 1A, , , DIP,	1		BR1
QD-000120-20	DIODE RECTIFIER ULTRAFAST, 200V, 1A, , MUR120RL, D0-41, 35NS	3		D9-D11
QD-000125-00	DIODE RECTIFIER FAST, 600V, 37A, , DSEI30-06A, T0-247AD, 50NS	2		D21, D22
QD-000126-00	DIODE RECTIFIER FAST, 600V, 75A, , DSEI120-06A, T0-247AD, 50NS	4		D12, D14, D16, D17
QD-000164-10	TRANSISTOR NPN, 200V, 0.5A, 0.625W, MPSA43, T0-92,	1		Q5
QD-000183-00	DIODE, 600V, 60A, , 60EPS08, T0-247AD, PL9.0	4		D1, D2, D7, D8
QD-004004-DX	DIODE, 400V, 1A, , 1N4004, D0-41, 2US	1		D18
QD-004148-DX	DIODE, 75V, 0.075A, , 1N4148, D0-35, 4NS	2		D23, D24
QD-004753-ZT	DIODE ZENER, 36V, , 1W, 1N4753A, D0-41,	2		D13, D15
RE-.24001-00	2.4, 5 PCNT, 5W, METAL OXIDE FP, , NON-INDUCTIVE	1	USE .050 SPACER	R15
RE-.47501-10	4.75, 1 PCNT, 1/4W, METAL FILM, ,	4		R5-R8
RE-001003-00	10, 10 PCNT, 5W, WIRE WOUND, VERTICAL, NON-INDUCTIVE	8		R16, R18, R22, R29, R30, R32-R34
RE-003305-DM	33, 5 PCNT, 1W, METAL OXIDE FP, ,	2		R13, R14
RE-010003-10	100, 1 PCNT, 1/8W, METAL FILM, ,	1		R17
RE-110001-AM	1.00K, 1 PCNT, 1/8W, METAL FILM, ,	2		R1, R2
RE-147005-DM	4.7K, 5 PCNT, 1W, METAL OXIDE FP, ,	4		R35-R38

Power Supply Assembly WP-000173-02 (continued)

QSC Part #	Description	Qty	Comments	Reference
RE-210001-BM	10.0K, 1 PCNT, 1/4W, METAL FILM, ,	4		R9-R12
RE-224902-10	24.9K, 1 PCNT, 1/4W, METAL FILM, ,	1		R28
RE-230103-10	30.1K, 1 PCNT, 1/4W, METAL FILM, ,	2		R39, R40
RE-247003-00	47K, 5 PCNT, 2W, METAL OXIDE FP, ,	1	(TWO DIFFERENT PREP.)	R31
RE-247003-00	47K, 5 PCNT, 2W, METAL OXIDE FP, ,	2		R3, R4
RE-290900-10	90.9K, 1 PCNT, 1/4W, METAL FILM, ,	2		R41, R42
RE-310005-BC	100K, 5 PCNT, 1/4W, CARBON FILM, ,	2		R19, R23
RE-312101-BM	121K, 1 PCNT, 1/4W, METAL FILM, ,	2		R44, R45
RE-333201-10	332K, 1 PCNT, 1/3W, METAL FILM, ,	2		R21, R25
RE-336500-10	365K, 1 PCNT, 1/4W, METAL FILM, ,	1		R43
RE-347503-10	475K, 1 PCNT, 1/4W, METAL FILM, ,	2		R26, R27
SC-060060-PS	PHILLIPS, SEMS EXTERNAL TOOTH, #6-32, 0.375" L, ZINC,	8	RER: Q1-4	
SC-060061-PP	PHILLIPS, PANHEAD, #6-32, 0.375" L, BLACK,	12	T1,L1 GET THIS SCREW FROM TOUCH UP T22	
SC-060121-PP	PHILLIPS, PANHEAD, #6-32, 0.75" L, BLACK,	2		
SC-061081-PP	PHILLIPS, PANHEAD, #6, 0.375" L, ZINC, TYPE B	5		
SC-080122-HC	HEX, CAP, #8-32, 0.75" L, BLACK,	12	D1,2,D7,8,12,D14,16,17,D19-22	
WC-0.3514-JW	JUMPER, BARE, 14 AWG SOLID, 1 CONDUCTOR, , 0.35" L,	2		W7, W9
WC-000091-00	JUMPER, COPPER FOIL AND KAPTON, 0.3" X 0.003", 1 CONDUCTOR, PL9.0, 4.9" L,	1	ROUTE THRU C21,22	W5
WC-000092-00	JUMPER, COPPER FOIL AND KAPTON, 0.3" X 0.003", 1 CONDUCTOR, PL9.0, 1.4" L,	4	REF ASSY DRAWING	W1-W4
WC-000093-00	JUMPER, COPPER FOIL AND KAPTON, 0.3" X 0.003", 1 CONDUCTOR, PL9.0, 4.3" L,	1	ROUTE THRU C21,22	W6
WC-000106-00	CABLE ASSY, 60 DEGREE PTC, 22 AWG, 2 CONDUCTOR, PL9.0, 8" L,	2	FROM HEATSINK TO J202	
WC-000109-00	RIBBON CABLE ASSY, GATE DRIVER, 24 AWG, 8 CONDUCTOR, PL9.0, 16" L,	1	FROM J200 TO J101 ON CONTROL PCB	
WC-000125-00	CABLE ASSY, DC OUTPUT, 10 AWG, 5 CONDUCTOR, PL9.0, 6" L,	1	E5-9(0-E9,1-E8,2-E7,3-E6,4-E5) FOLK TERMINAL FACE-UP	
WC-000130-00	CABLE ASSY, POWER SUPPLY/AMP, 24 AWG, 8 CONDUCTOR, PL9.0, 9.5" L,	1	FROM CONTROL PCB J100 TO AMP PCB	
WC-000133-00	JUMPER, TEFLON INSULATION, 16 AWG SOLID, 1 CONDUCTOR, , 1.75" L,	2	T2,3	
WC-000137-00	JUMPER, PVC INSULATION, 14 AWG, 1 CONDUCTOR, , 1.3" L,	3		W11-W13
WC-2.5218-JW	JUMPER, TEFLON INSULATION, 18 AWG, 1 CONDUCTOR, , 2.5" L, 0.250" LEAD LENGTH	1		W8
WP-000056-00	FET ASSY, MATCHED, PL6.0/PL9.0, ,	1	Q1-4 USE THE SCREWS IN THE PACKAGE TO ASSEMBLE THE HEATSINK TO PCB	
WP-000174-00	PCB ASSY, PS CONTROLLER, PL9.0, ,	1		
XF-000039-00	TRANSFORMER, SWITCHING, 100KHZ, , 4000W, PL9.0, ,	1		T1
XF-000041-00	INDUCTOR, POWER, , 45UH, PL9.0, 120V,	1		L1
XF-000042-00	INDUCTOR, COMMON MODE, TOROID, , PL9.0, ,	1		L2
XF-000077-00	INDUCTOR, CURRENT SENSE, TOROID, 100TURN, PL9.0, ,	2	CUT AND REMOVE GRAY WIRES	T2, T3

Power Supply Assembly (QSC part # WP-000180-00)

Where used: PowerLight 9.0^{PF}C, 230 volts.

This is a subassembly of the Chassis Assembly, WP-000170-02; two per amplifier.

QSC Part #	Description	Qty	Comments	Reference
CA-147100-BD	470PF, 10 PCNT, 100V, CERAMIC Y5F, DISC,	4		C1-C4
CA-210007-00	0.001UF, 5 PCNT, 500V, MICA, DIPPED,	4		C27, C29, C33, C35
CA-222004-00	0.0022UF, 5 PCNT, 500V, MICA, DIPPED,	2		C40, C41
CA-247001-00	0.0047UF, 5 PCNT, 500V, MICA, DIPPED,	2		C44, C45
CA-310001-10	0.01UF, 10 PCNT, 100V, FILM, DIPPED,	1		C7
CA-347400-BP	0.047UF, 10 PCNT, 400V, FILM, DIPPED,	4	C13,18 NEED TO BE LAID FLAT ON THE PCB	C13, C18, C23, C37
CA-410009-00	0.1UF, 5 PCNT, 250V, FILM, WRAPPED,	1	VERTICAL PREP/ USE .050 SPACER	C20
CA-422001-10	0.22UF, 5 PCNT, 50V, FILM, DIPPED, LOW PROFILE	4		C47-C50
CA-510001-10	1.0UF, 20 PCNT, 50V, CERAMIC Z5U, DIPPED,	4		C5, C9, C14, C16
CA-550001-00	5.0UF, 10 PCNT, 250V, FILM, WRAPPED, HIGH FREQ LOW ESR	2	USE .1000 SPACER	C43, C46
CA-568001-00	6.8UF, 10 PCNT, 400V, FILM, WRAPPED,	4	USE .1000 SPACER (PREP AT VERT. POSITION)	C21, C22, C24, C31
CA-610004-00	10UF, 20 PCNT, 25V, ELECTROLYTIC, , LOW PROFILE	2		C6, C10
CA-922002-00	22000UF, 20 PCNT, 50V, ELECTROLYTIC, ,	8		C26, C28, C30, C32, C34, C36, C39, C42
CH-000076-00	HEAT SINK, PS, FET, PL9.0,	1		
CH-000077-00	HEAT SINK, DIODE, , PL9.0,	1		
CH-000089-00	CLAMP, DIODE, 1 FINGER, PL9.0,	12		
CO-000074-00	HEADER, 0.1" CENTERS, 8 POS (1X8), MALE, RAMP LOCK	1		J202
CO-000122-00	HEADER, 0.1" CENTERS, 8 POS (1X8), MALE, RIGHT ANGLE RAMP LOCK	1		J200
HW-000007-HW	FUSE CLIP, PC MOUNT, , , TIN PLATED BRASS, 5MM	2	F1	

Power Supply Assembly WP-000180-02 (continued)

QSC Part #	Description	Qty	Comments	Reference
HW-000006-S0	SPACER, 0.312" ROUND, #8, 0.470" L, ALUMINUM, SWAGE	2		
HW-000000-PS	STUD, PEM STYLE, #8-32, 0.500" L, TIN PLATED BRONZE,	2	E2,3	
IC-000064-00	DRIVER, MOSFET, 4452BN, ,	2		U1, U3
MS-000113-00	FUSE, 1A, 250V, 5MM X 20MM, SLO-BLO	1		F1
NW-000000-PI	PRESS-IN NUT, #6-32, PCB MOUNT, CARBON STEEL,	2	PL-000087-00, INSTALL ON BOTTOM SIDE	
NW-062010-FW	FLAT WASHER, #6, , , ZINC PLATE	2		
NW-180001-03	FLAT WASHER, 0.177" , , STAINLESS STEEL,	12		
PC-000173-00	POWER SUPPLY, PL9.0, ,	1		
PL-000010-00	BUMPER, ADHESIVE BACKED, 0.5" X 0.5", POLYURETHANE, BLACK,	3		
PL-000059-00	INSULATOR, TRANSISTOR, 1.125" X 2", MICA, ,	2	D1,2,D7,8	
PL-000085-00	INSULATOR, TRANSISTOR, 1.525" X 0.950", ALUMINA, ,	5		
PL-000086-00	INSULATOR, TRANSISTOR, 2.875" X 0.950", ALUMINA, ,	1		
PL-000087-00	CARD GUIDE, 0.063" PCB, 2.0" HEIGHT, , , VERTICAL	2	WP-000174-00, MATCH THE LOCATION ON THE SILK SCREEN	
PL-000089-00	INSULATOR, RECTIFIER HEAT SINK, PL9.0, FISH PAPER, ,	1		
PL-000090-00	INSULATOR, TRANSFORMER/INDUCTOR, PL9.0, FISH PAPER, ,	2		
PL-000134-00	GROMMET, VIBRATION DAMPING, 0.375" OD, NEOPRENE, ,	1		
PL-000139-00	INSULATOR, POWER SUPPLY HEAT SINK, PL9.0, , ,	1		
PL-903125-SP	SPACER, ROUND, 0.047"ID X 0.156"OD X 0.125"L, NYLON, ,	2	W8	
QD-000022-QD	DIODE ZENER, 18V, , 1W, 1N4746A, D0-41,	4		D3-D6
QD-000023-QD	DIODE ZENER, 180V, , 1.5W, 1N5955A, D0-41,	8		D30-D37
QD-000065-10	TRANSISTOR PNP, 300V, 0.5A, 1.5W, MPSA92, T0-92,	1		Q6
QD-000117-00	DIODE RECTIFIER FAST, 600V, 60A, , DSEI60-06A, T0-247AD, 35NS	2		D19, D20
QD-000118-00	BRIDGE RECTIFIER, 1000V, 1A, , , DIP,	1		BR1
QD-000120-20	DIODE RECTIFIER ULTRAFAST, 200V, 1A, , MUR120RL, D0-41, 35NS	3		D9, D10, D11
QD-000125-00	DIODE RECTIFIER FAST, 600V, 37A, , DSEI30-06A, T0-247AD, 50NS	2		D21, D22
QD-000126-00	DIODE RECTIFIER FAST, 600V, 75A, , DSEI120-06A, T0-247AD, 50NS	4		D12, D14, D16, D17
QD-000164-10	TRANSISTOR NPN, 200V, 0.5A, 0.625W, MPSA43, T0-92,	1		Q5
QD-000182-00	DIODE, 1200V, 60A, , 60EPS12, T0-247AD,	4		D1, D2, D7, D8
QD-004004-DX	DIODE, 400V, 1A, , 1N4004, D0-41, 2US	1		D18
QD-004148-DX	DIODE, 75V, 0.075A, , 1N4148, D0-35, 4NS	2		D23, D24
QD-004753-ZT	DIODE ZENER, 36V, , 1W, 1N4753A, D0-41,	2		D13, D15
RE-.24001-00	2.4, 5 PCNT, 5W, METAL OXIDE FP, , NON-INDUCTIVE	1	USE .050 SPACER	R15
RE-.47501-10	4.75, 1 PCNT, 1/4W, METAL FILM, ,	4		R5-R8
RE-001003-00	10, 10 PCNT, 5W, WIRE WOUND, VERTICAL, NON-INDUCTIVE	8		R16, R18, R22, R29, R30, R32-R34
RE-010003-10	100, 1 PCNT, 1/8W, METAL FILM, ,	1		R17
RE-003305-DM	33, 5 PCNT, 1W, METAL OXIDE FP, ,	2		R13, R14
RE-110001-AM	1.00K, 1 PCNT, 1/8W, METAL FILM, ,	2		R1, R2
RE-147005-DM	4.7K, 5 PCNT, 1W, METAL OXIDE FP, ,	4		R35-R38
RE-210001-BM	10.0K, 1 PCNT, 1/4W, METAL FILM, ,	4		R9-R12
RE-212701-BM	12.7K, 1 PCNT, 1/4W, METAL FILM, ,	1		R28
RE-230103-10	30.1K, 1 PCNT, 1/4W, METAL FILM, ,	2		R39, R40
RE-247003-00	47K, 5 PCNT, 2W, METAL OXIDE FP, ,	1	(TWO DIFF PREP.)	R31
RE-247003-00	47K, 5 PCNT, 2W, METAL OXIDE FP, ,	2		R3, R4
RE-290900-10	90.9K, 1 PCNT, 1/4W, METAL FILM, ,	2		R41, R42
RE-312101-BM	121K, 1 PCNT, 1/4W, METAL FILM, ,	2		R44, R45
RE-320001-10	200K, 1 PCNT, 1/4W, METAL FILM, ,	2		R19, R23
RE-336500-10	365K, 1 PCNT, 1/4W, METAL FILM, ,	1		R43
RE-347503-10	475K, 1 PCNT, 1/4W, METAL FILM, ,	2		R26, R27
RE-366501-10	665K, 1 PCNT, 1/4W, METAL FILM, ,	2		R21, R25
SC-060060-PS	PHILLIPS, SEMS EXTERNAL TOOTH, #6-32, 0.375" L, ZINC,	8	REF: Q1-4	
SC-060061-PP	PHILLIPS, PANHEAD, #6-32, 0.375" L, BLACK,	12	T1,L1 GET THIS SCREW FROM TOUCH UP T22	
SC-060121-PP	PHILLIPS, PANHEAD, #6-32, 0.75" L, BLACK,	2		
SC-061081-PP	PHILLIPS, PANHEAD, #6, 0.375" L, ZINC, TYPE B	5		
SC-080122-HC	HEX, CAP, #8-32, 0.75" L, BLACK,	12	D1,2,D7,8,12,D14,16,17,D19-22	
WC-000091-00	JUMPER, COPPER FOIL AND KAPTON, 0.3" X 0.003", 1 CONDUCTOR, PL9.0, 4.9" L,	1	ROUTE THRU C21,22	W5
WC-000092-00	JUMPER, COPPER FOIL AND KAPTON, 0.3" X 0.003", 1 CONDUCTOR, PL9.0, 1.4" L,	4	REF ASSY DRAWING	W1-W4
WC-000093-00	JUMPER, COPPER FOIL AND KAPTON, 0.3" X 0.003", 1 CONDUCTOR, PL9.0, 4.3" L,	1	ROUTE THRU C21,22	W6
WC-000106-00	CABLE ASSY, 60 DEGREE PTC, 22 AWG, 2 CONDUCTOR, PL9.0, 8" L,	2	FROM HEATSINK TO J202	
WC-000109-00	RIBBON CABLE ASSY, GATE DRIVER, 24 AWG, 8 CONDUCTOR, PL9.0, 16" L,	1	FROM J200 TO J101 ON CONTROL PCB	
WC-000125-00	CABLE ASSY, DC OUTPUT, 10 AWG, 5 CONDUCTOR, PL9.0, 6" L,	1	E5-9(0-E9,1-E8,2-E7,3-E6,4-E5) FOLK TERMINAL FACE-UP	
WC-000127-00	JUMPER, PVC INSULATION, 14 AWG SOLID, 1 CONDUCTOR, , 1.75" L,	1		W10
WC-000130-00	CABLE ASSY, POWER SUPPLY/AMP, 24 AWG, 8 CONDUCTOR, PL9.0, 9.5" L,	1	FROM CONTROL PCB J100 TO AMP PCB	

Power Supply Assembly WP-000180-02 (continued)

QSC Part #	Description	Qty	Comments	Reference
WC-000133-00	JUMPER, TEFLON INSULATION, 16 AWG SOLID, 1 CONDUCTOR, , 1.75" L,	2	T2,3	
WC-000137-00	JUMPER, PVC INSULATION, 14 AWG, 1 CONDUCTOR, , 1.3" L,	3		W11-W13
WC-2.5218-JW	JUMPER, TEFLON INSULATION, 18 AWG, 1 CONDUCTOR, , 2.5" L, 0.250" LEAD LENGTH	1		W8
WP-000056-00	FET ASSY, MATCHED, PL6.0/PL9.0, ,	1	Q1-4 USE THE SCREWS IN THE PACKAGE TO ASSEMBLE THE HEATSINK TO PCB	
WP-000174-00	PCB ASSY, PS CONTROLLER, PL9.0, ,	1		
XF-000039-00	TRANSFORMER, SWITCHING, 100KHZ, , 4000W, PL9.0, ,	1		T1
XF-000042-00	INDUCTOR, COMMON MODE, TOROID, , PL9.0, ,	1		L2
XF-000047-00	INDUCTOR, POWER, , 45UH, PL9.0, 240V,	1		L1
XF-000077-00	INDUCTOR, CURRENT SENSE, TOROID, 100TURN, PL9.0, ,	2	CUT AND REMOVE GRAY WIRES	T2, T3

Power Supply Controller Assembly (QSC part # WP-000174-00)

Where used: PowerLight 9.0^{PFC}, 120 and 230 volts.

This is a subassembly of the Power Supply Assembly, WP-000173-00 or WP-000180-00; two per amplifier.

QSC Part #	Description	Qty	Comments	Reference
CA-110002-30	100PF, 5 PCNT, 50V, CERAMIC NPO, 0805,	1		C33
CA-122002-30	220PF, 5 PCNT, 50V, CERAMIC NPO, 0805,	1		C26
CA-147004-30	470PF, 5 PCNT, 50V, CERAMIC NPO, 0805,	2		C43, C73
CA-210006-30	0.001UF, 2 PCNT, 100V, CERAMIC NPO, 0805,	4		C3, C35-C37
CA-222050-CP	0.0022UF, 5 PCNT, 50V, FILM, DIPPED, NON-AI	1	USE .050 SPACER	C41
CA-310001-10	0.01UF, 10 PCNT, 100V, FILM, DIPPED,	1		C42
CA-347002-30	0.047UF, 20 PCNT, 50V, CERAMIC Z5U, 0805,	58		C2, C5, C6, C11, C13, C18-C23, C25, C27-C29, C31, C32, C38, C44, C46, C48, C50-C54, C56-C63, C67-C69, C72, C77, C79, C81-C92
CA-347004-30	0.047UF, 20 PCNT, 50V, CERAMIC X7R, 1206,	1		C65
CA-410002-10	0.1UF, 5 PCNT, 100V, FILM, DIPPED,	1		C47
CA-410006-30	0.1UF, 10 PCNT, 50V, CERAMIC X7R, 1206,	2		C7, C8
CA-510001-10	1.0UF, 20 PCNT, 50V, CERAMIC Z5U, DIPPED,	3		C30, C34, C49
CA-610006-30	10UF, 20 PCNT, 16V, ELECTROLYTIC, SMT,	7		C4, C14, C40, C45, C70, C71, C93
CA-622002-30	22UF, 20 PCNT, 25V, TANTALUM, SMT,	5		C9, C10, C15-C17
CA-633001-00	33UF, 20 PCNT, 400V, ELECTROLYTIC, ,	1	USE .050 SPACER	C12
CO-000074-00	HEADER, 0.1" CENTERS, 8 POS (1X8), MALE, RAMP LOCK	2	REF: J100,101	
CO-000157-00	HEADER, 0.1" CENTERS, 8 POS (1X8), MALE, RIGHT ANGLE	2		J102, J103
CO-000158-00	HEADER, 0.1" CENTERS, 4 POS (1X4), MALE, RIGHT ANGLE	2		J104, J105
IC-000031-00	OPTO ISOLATOR, , 4N30, ,	1		U22
IC-000042-00	VOLTAGE REGULATOR, +5V, MC7805CT, ,	1		U9
IC-000049-00	OPTO COUPLER, , HCPL2200, ,	2		U14, U13
IC-000050-00	OPTO COUPLER, , 6N137, ,	1		U1
IC-000051-00	OPTO ISOLATOR, , MOC8101, ,	1		U5
IC-000053-30	TIMER, DUAL, LM556, ,	1		U2
IC-000054-30	COMPARATOR, QUAD, LM339AM, SMT,	3		U16, U19, U21
IC-000055-30	REGULATOR, POWER FACTOR, UC3854B, ,	1		U18
IC-000056-30	DRIVER, MOSFET, TC4427, SMT,	1		U11
IC-000057-30	COUNTER, RIPPLE, 74HC4024, SMT,	1		U12
IC-000059-00	TOP SWITCH, , TOP202, ,	1		U7
IC-000060-00	OSCILLATOR, CLOCK, 6.000 MHZ, ,	1		U10
IC-000063-30	OPAMP, QUAD, MC33074, ,	2		U17, U20
IC-000085-00	VOLTAGE REGULATOR, +12V, LM2937ET-12, , LOW DROP OUT	2		U4, U8
PC-000174-00	POWER SUPPLY CONTROLLER, PL9.0, ,	1		
PD-000036-30	POWER SUPPLY SIGNAL MANAGEMENT, GAL16V8, PL9.0, ,	1		U15
PT-210000-AT	TRIM, 1K, 20 PCNT, 0.15W, ,	1		VR4
PT-220000-AT	TRIM, 2K, 20 PCNT, 0.15W, ,	1		VR1
PT-250000-AT	TRIM, 5K, 20 PCNT, 0.15W, ,	1		VR3
PT-410000-AT	TRIM, 100K, 20 PCNT, 0.15W, ,	1		VR2
QD-000102-30	DIODE, 75V, 0.075A, , IMBD4148, SOT-23, 4NS	5		D1, D11, D13, D15, D6

Power Supply Controller Assembly WP-000174-00 (continued)

QSC Part #	Description	Qty	Comments	Ref erence
QD-000103-30	TRANSISTOR NPN, 40V, 0.2A, 0.2W, MMST3904, SOT-23,	7	Q3	Q10, Q4, Q5, Q7, Q8, Q9,
QD-000104-30	TRANSISTOR PNP, 40V, 0.2A, 0.2W, MMST3906, SOT-23,	3		Q12, Q2, Q14
QD-000114-30	DIODE ZENER, 150V, , 600W PEAK, P6SMB150AT3, SMB,	1		D3
QD-000115-30	DIODE RECTIFIER ULTRAFAST, 600V, 1A, , MURS160T3, SMB, 75NS	2		D4, D5
QD-000116-30	DIODE RECTIFIER ULTRAFAST, 200V, 1A, , MURS120, SMB, 35NS	4		D2, D8, D9, D10
QD-000136-30	DIODE ZENER, 7.5V, , 0.3W, BZX84C7V5, SOT-23,	1		D7
QD-000163-30	LED RED, , , , SML-010, VOLTAGE REFERENCE	1		LD1
QD-000168-30	DIODE SCHOTTKY, 70V, 0.2A, , BAS70-04, SOT-23,	2		D14, D12
RE-007502-30	75, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R72
RE-018201-30	182, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R15
RE-020002-30	200, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R2
RE-033205-30	332, 0.1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R18
RE-090901-30	909, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R37
RE-110002-30	1.00K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	15	R4, R43, R47, R51, R54, R80, R84, R98, R75, R46	R19, R20, R24, R25, R35,
RE-110502-30	1.05K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	2		R86, R22
RE-115002-30	1.50K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	4		R16, R17, R7, R70
RE-120002-30	2.00K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R48
RE-124902-30	2.49K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	2		R50, R97
RE-130102-30	3.01K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	2		R13, R14
RE-134802-30	3.48K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R68
RE-147502-30	4.75K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	8	R38, R33, R23	R32, R34, R60, R90, R92,
RE-160401-30	6.04K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	4		R36, R44, R45, R79
RE-161900-30	6.19K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R29
RE-163402-30	6.34K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R5
RE-178702-30	7.87K, 0.1 PCNT, 1/10W, THICK FILM, 0805, 100V	3		R57, R58, R83
RE-210003-30	10.0K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	9	R96, R91, R93, R94	R21, R31, R39, R73, R95,
RE-212702-30	12.7K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	3		R41, R52, R78
RE-215002-30	15.0K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	4		R101, R82, R85, R87
RE-221502-30	21.5K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	7	R81, R71	R10, R56, R59, R65, R74,
RE-224901-30	24.9K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	2		R9, R11
RE-227401-30	27.4K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R28
RE-239203-30	39.2K, 0.1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R55
RE-245302-30	45.3K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R3
RE-247503-30	47.5K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	2		R69, R77
RE-310002-30	100K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	9	R67, R76, R8, R88	R26, R27, R30, R6, R66,
RE-314001-30	140K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R12
RE-375001-30	750K, 1 PCNT, 1/10W, THICK FILM, 0805, 100V	1		R40
XF-000037-00	TRANSFORMER, HOUSEKEEPING, , , , PL9.0, , POWER SUPPLY	1		T1

Display PCB Assembly (QSC part number WP-000176-00)

Where used: All models, all voltages

This is a subassembly of each model's respective chassis assembly; one per amplifier.

QSC Part #	Description	Qty	Comments	Ref erence
CA-147001-10	470PF, 10 PCNT, 100V, CERAMIC Y5E, DISC,	2		C502, C602
CA-410004-10	0.1UF, 20 PCNT, 50V, CERAMIC Z5U, DIPPED,	2		C507, C607
CA-422001-10	0.22UF, 5 PCNT, 50V, FILM, DIPPED, LOW PROFILE	4		C501, C505, C601, C605
CA-647003-10	47UF, 10 PCNT, 10V, ELECTROLYTIC, , NON-POLAR LOW PROFILE	2		C503, C603
CA-710035-BE	100UF, 20 PCNT, 35V, ELECTROLYTIC, , NON-AI	4		C504, C506, C604, C606
CO-000048-CO	HEADER, 0.1" CENTERS, 16 POS (2X8), MALE, TERMINAL STRIP GOLD	2		J501, J601
IC-000072-OP	OPAMP, DUAL, TL072, ,	2		U501, U601
PC-000176-00	DISPLAY, PL9.0, ,	1		
PL-000127-00	SPACER, T-1 LED, 0.48", PLASTIC, BLACK,	14	ASSEMBLE W/ QD-000052-00, QD-000053-00, QD-000054-0	

Display PCB Assembly WP-000176-00 (continued)

QSC Part #	Description	Qty	Comments	Ref erence
PT-310000-CR	GAIN, 10K, 20 PCNT, 0.2W, 11 DETENT,	2		R509, R609
QD-000052-00	LED GREEN, , , , , T-1, DIFFUSED	4		LD503, LD603, LD507, LD607
QD-000053-00	LED YELLOW, , , , , T-1,	6		LD502, LD505, LD506, LD602, LD605, LD606
QD-000054-00	LED RED, , , , , T-1,	4		LD501, LD504, LD601, LD604
QD-000062-10	TRANSISTOR NPN, 40V, 0.2A, 1.5W, 2N3904, TO-92,	4		Q505, Q507, Q605, Q607
QD-000063-10	TRANSISTOR PNP, 40V, 0.2A, 1.5W, 2N3906, TO-92,	12		Q501-Q504, Q506, Q508, Q601-Q604, Q606, Q608
QD-004148-DX	DIODE, 75V, 0.075A, , 1N4148, DO-35, 4NS	6		D501-D503, D601-D603
RE-004751-BM	47.5, 1 PCNT, 1/4W, METAL FILM, ,	4		R513, R517, R613, R617
RE-027005-BC	270, 5 PCNT, 1/4W, CARBON FILM, ,	4		R503, R516, R603, R616
RE-047501-BM	475, 1 PCNT, 1/4W, METAL FILM, ,	6		R514, R518, R519, R614, R618, R619
RE-064901-BM	649, 1 PCNT, 1/4W, METAL FILM, ,	2		R515, R615
RE-082005-BC	820, 5 PCNT, 1/4W, CARBON FILM, ,	2		R520, R620
RE-122101-BM	2.21K, 1 PCNT, 1/4W, METAL FILM, ,	2		R508, R608
RE-134801-BM	3.48K, 1 PCNT, 1/4W, METAL FILM, ,	2		R512, R612
RE-145301-10	4.53K, 1 PCNT, 1/8W, METAL FILM, ,	2		R507, R607
RE-147501-AM	4.75K, 1 PCNT, 1/8W, METAL FILM, ,	6		R504-R506, R604-R606
RE-220001-BM	20.0K, 1 PCNT, 1/4W, METAL FILM, ,	4		R510, R511, R611, R610
SW-000042-00	SWITCH, DPDT, PUSH-LOCK, PCB MOUNT VERTICAL *	2		SW501, SW601

*THE SWITCH WHITE SHAFT SHOULD BE ON THE LOWER END OF THE BOARD

Line Filter Assembly (QSC part number WP-000177-00)

Where used: All models, 120 volts

This is a subassembly of the chassis assembly; one per amplifier.

QSC Part #	Description	Qty	Comments	Ref erence
CA-222001-00	0.0022UF, 20 PCNT, 125VAC, CERAMIC Y5U, DISC, YCAP	4		C10, C11, C8, C9
CA-347400-BP	0.047UF, 10 PCNT, 400V, FILM, DIPPED,	2		C12, C13
CA-447001-00	0.47UF, 20 PCNT, 250VAC, FILM, BOX STYLE, XCAP	5	USE .050 SPACER	C1, C2, C4, C5, C6
HW-000001-FC	FUSE CLIP, PC MOUNT, , , TIN PLATED BRASS, 3AG	8		F1, F3, F5, F6
HW-000007-HW	FUSE CLIP, PC MOUNT, , , TIN PLATED BRASS, 5MM	4		F2, F4
HW-000080-PS	STUD, PEM STYLE, #8-32, 0.500" L, TIN PLATED BRONZE,	2		
MS-000112-00	FUSE, 25A, 125V, 0.25" X 1.25", NORMAL-BLO	4		F1, F3, F5, F6
MS-000113-00	FUSE, 1A, 250V, 5MM X 20MM, SLO-BLO	2		F2, F4
NW-060000-PI	PRESS-IN NUT, #6-32, PCB MOUNT, CARBON STEEL,	4		L1, L4, L5, L7
PC-000177-00	AC LINE FILTER, PL9.0, ,	1		
QD-000157-10	DIODE, 1000V, 1.5A, , 1N5399, D0-15,	2		D1, D2
RE-000240-MV	MOV, 150VAC, 80 JOULES,	1	USE .050 SPACER	R1
RE-375005-BM	750K, 5 PCNT, 1/2W, METAL FILM, ,	3		R2, R3, R4
SC-060061-PP	PHILLIPS, PANHEAD, #6-32, 0.375" L, BLACK,	4	L1, L4, L5, L7 (USE ELECTRICAL DRIVER WITH TORQUE SET #5)	
WC-000096-00	WIRE ASSY, AC SWITCH, 10 AWG, 1 CONDUCTOR, PL9.0, 4.5" L,	4	E1, E2, E5, E6 (FLAT SIDE CONN FACE-IN ON BOTH SIDE)	
WC-000121-00	WIRE ASSY, POWER SUPPLY, 10 AWG, 1 CONDUCTOR, PL9.0, 17" L, BLACK	1	E7	
WC-000121-01	WIRE ASSY, POWER SUPPLY, 10 AWG, 1 CONDUCTOR, PL9.0, 26" L, BLACK	1	E3	
WC-000122-00	WIRE ASSY, POWER SUPPLY, 10 AWG, 1 CONDUCTOR, PL9.0, 20" L, WHITE	1	E9	
WC-000122-01	WIRE ASSY, POWER SUPPLY, 10 AWG, 1 CONDUCTOR, PL9.0, 29" L, WHITE	1	E8	
WC-000126-00	CABLE ASSY, HOUSEKEEPING, 20 AWG, 2 CONDUCTOR, PL9.0, 21" L,	1	E17(WHITE WIRE),E18(BLACK WIRE)	WIRE LENGTH 26" INCHES
WC-000126-01	CABLE ASSY, HOUSEKEEPING, 20 AWG, 2 CONDUCTOR, PL9.0, 26" L,	1	E11(WHITE WIRE),E12(BLACK WIRE)	WIRE LENGTH 26" INCHES
XF-000049-00	INDUCTOR, COMMON MODE, , 120UH, , ,	2		L8, L9
XF-000071-00	INDUCTOR, LINE FILTER, TOROID, 4.6UH, PL9.0, ,	2		L4, L7
XF-000072-00	INDUCTOR, COMMON MODE, TOROID, 1.5MH, PL9.0, ,	2	(RED: PIN#2,4; BLK: PIN#1,3; BIG HOLE)	L5, L1

Line Filter Assembly (QSC part number WP-000181-00)

Where used: All models, 230 volts

This is a subassembly of the chassis assembly; one per amplifier.

QSC Part #	Description	Qty	Comments	Reference
CA-215001-00	0.0015UF, 20 PCNT, 125VAC, CERAMIC, DISC, YCAP	4		C10, C11, C8, C9
CA-347400-BP	0.047UF, 10 PCNT, 400V, FILM, DIPPED,	2		C12, C13
CA-510006-00	1.0UF, 20 PCNT, 250VAC, FILM, BOX STYLE, XCAP	4	USE .050 SPACER	C1, C6, C2, C4
HW-000001-FC	FUSE CLIP, PC MOUNT, , , TIN PLATED BRASS, 3AG	8	F1,3,F5,6	
HW-000007-HW	FUSE CLIP, PC MOUNT, , , TIN PLATED BRASS, 5MM	4	F2,4	
HW-000080-PS	STUD, PEM STYLE, #8-32, 0.500" L, TIN PLATED BRONZE,	2		
MS-000113-00	FUSE, 1A, 250V, 5MM X 20MM, SLO-BLO	2		F2, F4
MS-150250-FU	FUSE, 15A, 250V, 0.25" X 1.25", FAST	4		F1, F3, F5, F6
NW-060000-PI	PRESS-IN NUT, #6-32, PCB MOUNT, CARBON STEEL,	4	L1,4,L5,7	
PC-000177-00	AC LINE FILTER, PL9.0, ,	1		
QD-000157-10	DIODE, 1000V, 1.5A, , 1N5399, D0-15,	2		D1, D2
RE-000220-MV	MOV, 275VAC, 140 JOULES,	1		R1
RE-375005-BM	750K, 5 PCNT, 1/2W, METAL FILM, ,	5	(C5 LOCATION: FIX#15,LNGT 1.000)	C5, R2, R3, R4, R5
SC-060061-PP	PHILLIPS, PANHEAD, #6-32, 0.375" L, BLACK,	4	L1,4,5,7 (USE ELECTRICAL DRIVER WITH TORQUE SET #5)	
WC-000096-00	WIRE ASSY, AC SWITCH, 10 AWG, 1 CONDUCTOR, PL9.0, 4.5" L,	4	E1,2,E5,6(FLAT SIDE CONN FACE-IN ON BOTH SIDE)	
WC-000121-00	WIRE ASSY, POWER SUPPLY, 10 AWG, 1 CONDUCTOR, PL9.0, 17" L, BLACK	1	E7	
WC-000121-01	WIRE ASSY, POWER SUPPLY, 10 AWG, 1 CONDUCTOR, PL9.0, 26" L, BLACK	1	E3	
WC-000122-00	WIRE ASSY, POWER SUPPLY, 10 AWG, 1 CONDUCTOR, PL9.0, 20" L, WHITE	1	E9	
WC-000122-01	WIRE ASSY, POWER SUPPLY, 10 AWG, 1 CONDUCTOR, PL9.0, 29" L, WHITE	1	E8	
WC-000126-00	CABLE ASSY, HOUSEKEEPING, 20 AWG, 2 CONDUCTOR, PL9.0, 21" L,	1	E17(WHITE WIRE),E18(BLACK WIRE)	
WC-000126-01	CABLE ASSY, HOUSEKEEPING, 20 AWG, 2 CONDUCTOR, PL9.0, 26" L,	1	E11(WHITE WIRE),E12(BLACK WIRE)	
XF-000049-00	INDUCTOR, COMMON MODE, , 120UH, , ,	2		L9, L8
XF-000069-00	INDUCTOR, LINE FILTER, TOROID, 43UH, PL9.0, ,	2		L4, L7
XF-000070-00	INDUCTOR, COMMON MODE, TOROID, 8.5MH, PL9.0, ,	2	(RED: 2,4; BLK:1,3; USE SMALL HOLE)	L1, L5
LB-160226-01	FUSE, 15A, 250V, , UL	2		

Matched FETs

Where used: PL 6.0^{PFC}, PL 9.0^{PFC}

Please note that these FETs should always be replaced as a matched group. After any FET replacement, the power supply module must be recalibrated and aligned as instructed in this manual.

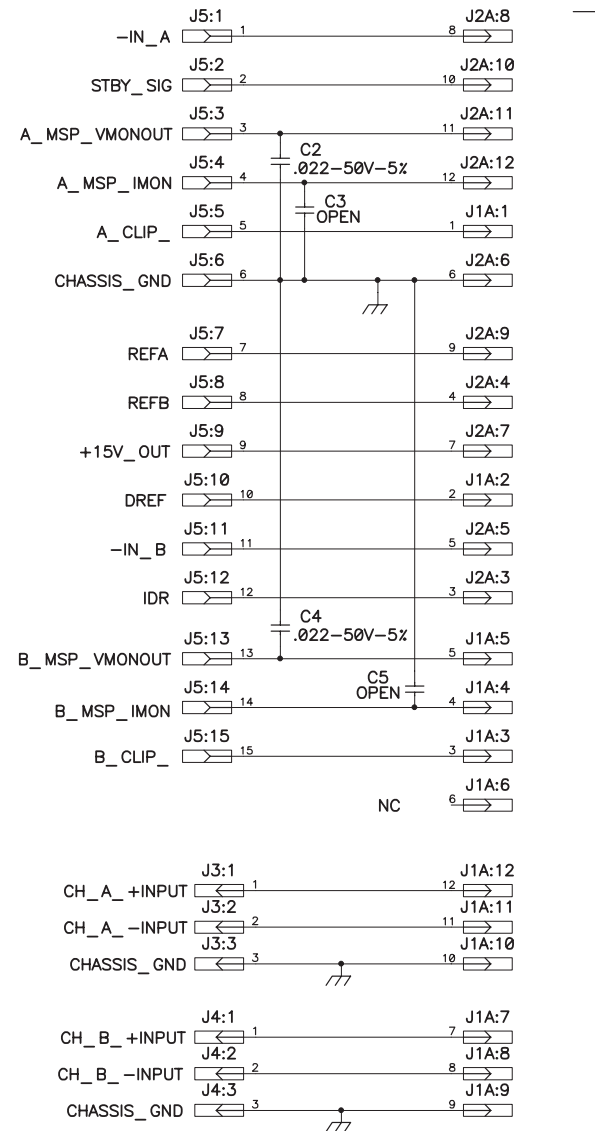
QSC Part Number: WP-000056-00

Part Number	Description	Qty	Comments	Ref Des
QD-000188-00	MOSFET N-CHANNEL, 500V, 55A, 600W, IXFN55N50, SOT-227B,	4		
PM-000019-00	BAG, ESD SHIELDING, , , 5" X 8",	1		

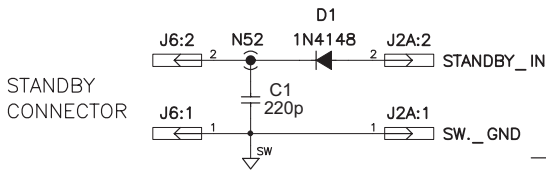
5. Schematic diagrams

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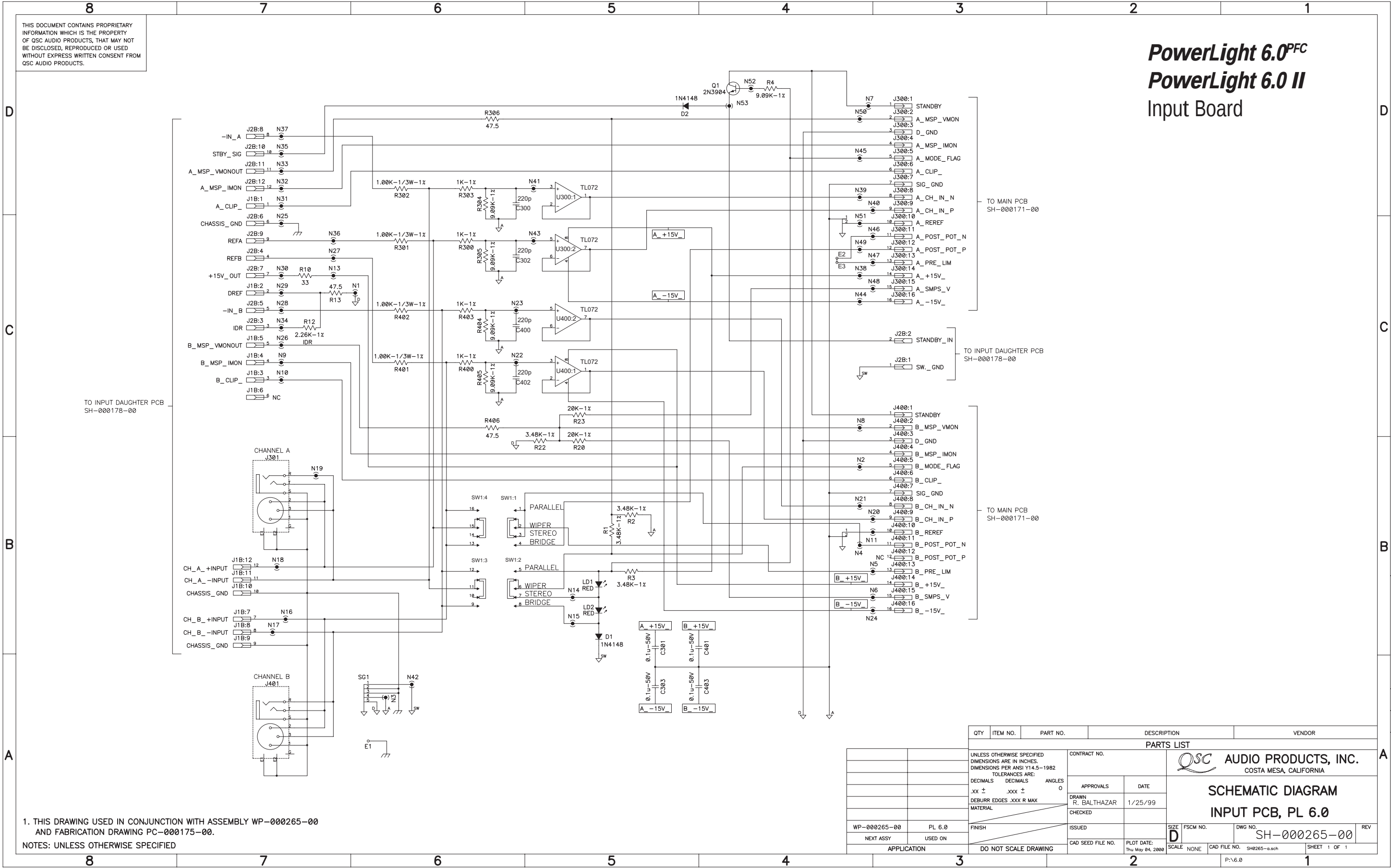
PowerLight 6.0^{PFC}
PowerLight 6.0 II
PowerLight 9.0^{PFC}
Input Daughterboard

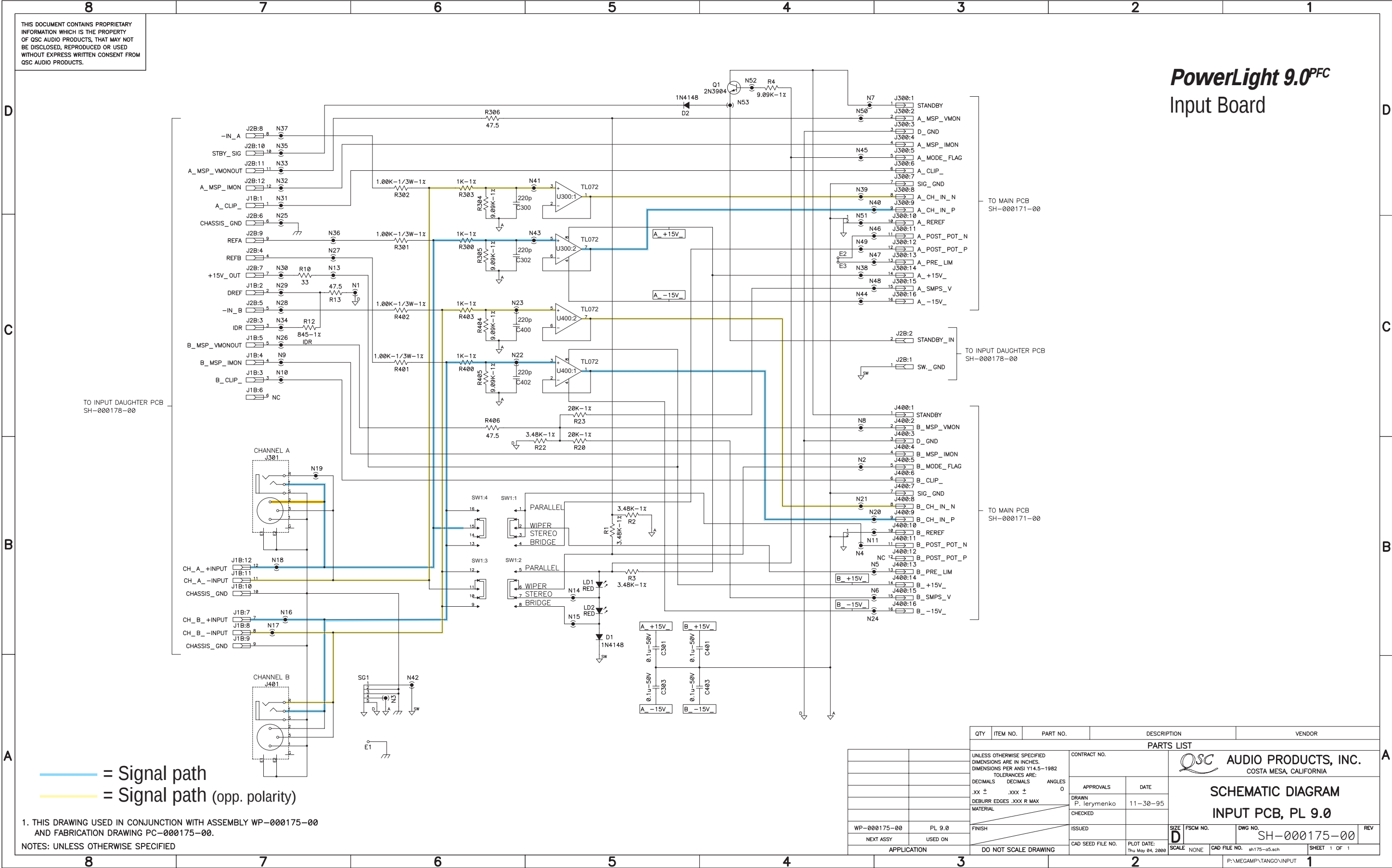


TO INPUT PCB
SH-000175-00



QTY	ITEM NO.	PART NO.	DESCRIPTION	VENDOR
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. DIMENSIONS PER ANSI Y14.5-1982 TOLERANCES ARE: DECIMALS DECIMALS ANGLES .XX ± .XXX ± 0 DEBURR EDGES .XXX R MAX MATERIAL			CONTRACT NO.	QSC AUDIO PRODUCTS, INC. COSTA MESA, CALIFORNIA
FINISH			APPROVALS DRAWN A. CERRILLO CHECKED	DATE 3-18-96
DO NOT SCALE DRAWING			ISSUED	SCALE
APPLICATION			CAD SEED FILE NO. SH0178-1.SCH	Thu May 04, 2000
WP-000178-00 PL 9.0			SIZE C	FSCM NO.
NEXT ASSY USED ON			DWG NO. SH-000178-00	REV
			CAD FILE NO. sh178-a3.sch	SHEET 1 OF 1





ROUTING

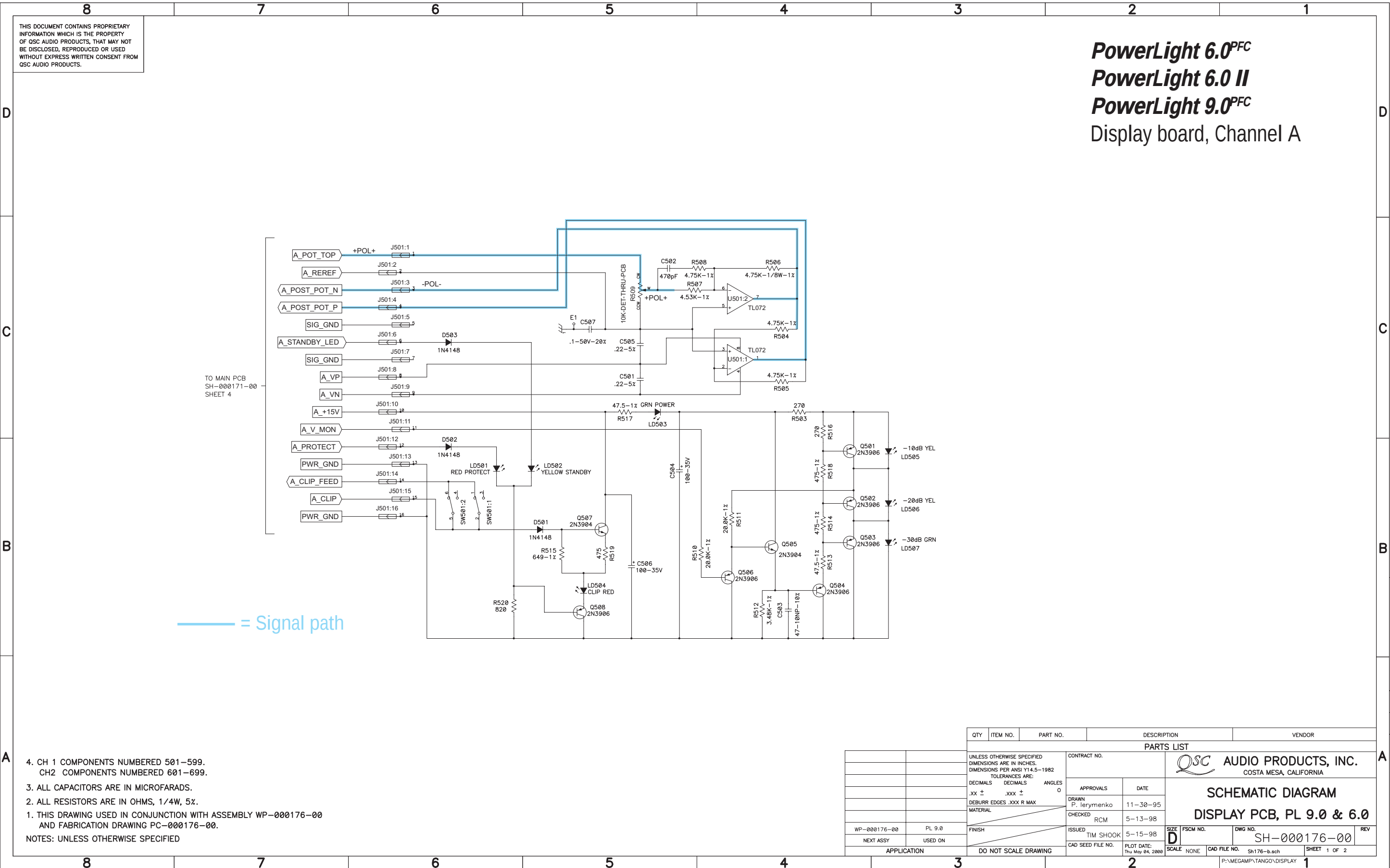


ROUTING



REV	4 SH	SH-000261-00	DWG NO.
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Technical Service Manual
PowerLight 6.0 II, PowerLight 6.0^{PC}, and PowerLight 9.0^{PC}

[illegible][illegible]

PowerLight 6.0^{PFC}
PowerLight 6.0 II
PowerLight 9.0^{PFC}
Display board, Channel A

TO MAIN PCB
SH-000171-00
SHEET 4

— = Signal path

4. CH 1 COMPONENTS NUMBERED 501–599.
CH2 COMPONENTS NUMBERED 601–699.

3. ALL CAPACITORS ARE IN MICROFARADS.

2. ALL RESISTORS ARE IN OHMS, 1/4W, 5%.

1. THIS DRAWING USED IN CONJUNCTION WITH ASSEMBLY WP-000176-00 AND FABRICATION DRAWING PC-000176-00.

NOTES: UNLESS OTHERWISE SPECIFIED

QTY	ITEM NO.	PART NO.	DESCRIPTION	VENDOR
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ARE: DECIMALS DECIMALS ANGLES .XX ± .XXX ± ° DEBURR EDGES .XXX R MAX MATERIAL			CONTRACT NO.	
			APPROVALS	DATE
			DRAWN P. Ierymenko	11-30-95
			CHECKED RCM	5-13-98
			ISSUED TIM SHOOK	5-15-98
			CAD SEED FILE NO.	PLOT DATE: Thu May 04, 2000
WP-000176-00 PL 9.0			SCALE NONE	CAD FILE NO. Sh176-b.sch SHEET 1 OF 2
NEXT ASSY USED ON			DO NOT SCALE DRAWING	
APPLICATION			P:\MEGAMP\TANGO\DISPLAY	

- PowerLight 6.0^{PFC}**
PowerLight 6.0 II
PowerLight 9.0^{PFC}
Display board, Channel A

TO MAIN PCB
SH-000171-00
SHEET 4

— = Signal path

4. CH 1 COMPONENTS NUMBERED 501–599.
CH2 COMPONENTS NUMBERED 601–699.

3. ALL CAPACITORS ARE IN MICROFARADS.

2. ALL RESISTORS ARE IN OHMS, 1/4W, 5%.

1. THIS DRAWING USED IN CONJUNCTION WITH ASSEMBLY WP-000176-00 AND FABRICATION DRAWING PC-000176-00.

NOTES: UNLESS OTHERWISE SPECIFIED

QTY	ITEM NO.	PART NO.	DESCRIPTION	VENDOR
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ARE: DECIMALS DECIMALS ANGLES .XX ± .XXX ± ° DEBURR EDGES .XXX R MAX MATERIAL			CONTRACT NO.	
			APPROVALS	DATE
			DRAWN P. Ierymenko	11-30-95
			CHECKED RCM	5-13-98
			ISSUED TIM SHOOK	5-15-98
			CAD SEED FILE NO.	PLOT DATE: Thu May 04, 2000
APPLICATION			DO NOT SCALE DRAWING	

SIZE	FSCM NO.	DWG NO.	REV
D		SH-000176-00	

P:\MEGAMP\TANGO\DISPLAY

PowerLight 6.0^{PFC}
PowerLight 6.0 II
PowerLight 9.0^{PFC}
Display board, Channel A

TO MAIN PCB
SH-000171-00
SHEET 4

— = Signal path

4. CH 1 COMPONENTS NUMBERED 501–599.
CH2 COMPONENTS NUMBERED 601–699.

3. ALL CAPACITORS ARE IN MICROFARADS.

2. ALL RESISTORS ARE IN OHMS, 1/4W, 5%.

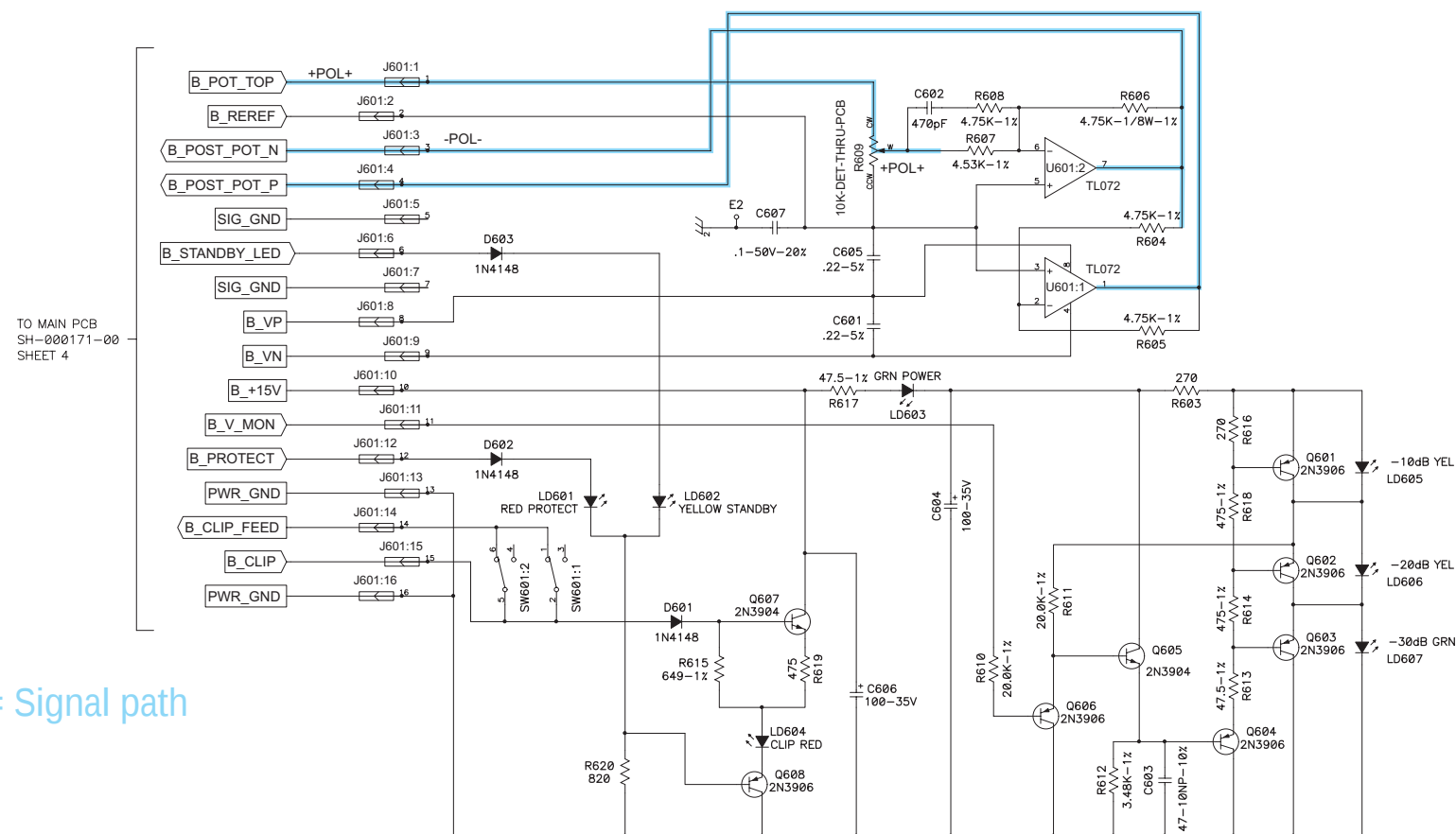
1. THIS DRAWING USED IN CONJUNCTION WITH ASSEMBLY WP-000176-00 AND FABRICATION DRAWING PC-000176-00.

NOTES: UNLESS OTHERWISE SPECIFIED

QTY	ITEM NO.	PART NO.	DESCRIPTION	VENDOR
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ARE: DECIMALS DECIMALS ANGLES .XX ± .XXX ± ° DEBURR EDGES .XXX R MAX MATERIAL			CONTRACT NO.	
			APPROVALS	DATE
			DRAWN P. Ierymenko	11-30-95
			CHECKED RCM	5-13-98
			ISSUED TIM SHOOK	5-15-98
			CAD SEED FILE NO.	PLOT DATE: Thu May 04, 2000
WP-000176-00 PL 9.0			SCALE NONE	CAD FILE NO. Sh176-b.sch SHEET 1 OF 2
NEXT ASSY USED ON			DO NOT SCALE DRAWING	
APPLICATION			P:\MEGAMP\TANGO\DISPLAY	

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PowerLight 6.0^{PFC}
PowerLight 6.0 II
PowerLight 9.0^{PFC}
Display board, Channel B



SIZE D	FSCM NO.	DWG NO. SH-000176-00	REV
SCALE	CAD FILE NO. Sh176-b.sch	SHEET 2 OF 2	

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SNAPPER

PowerLight 6.0^{PF}C PowerLight 6.0 II Class H Step Drivers

STEP DRIVE SELECTOR / RECTIFIER

THRESHOLD DETECTOR / COMPARATOR

NOTE: This opamp must not clamp its input terminals together. TL072 or EQUIV!!!

THRESHOLD DETECTOR / COMPARATOR

STEP SHUTDOWN

THRESHOLD DETECTOR / COMPARATOR

Power Limiter {Disabled via SMPS}

3 volts here signifies 50 amps output, so load is likely 2 ohms.

THRESHOLD COMPENSATION

STEP SWITCH CIRCUIT

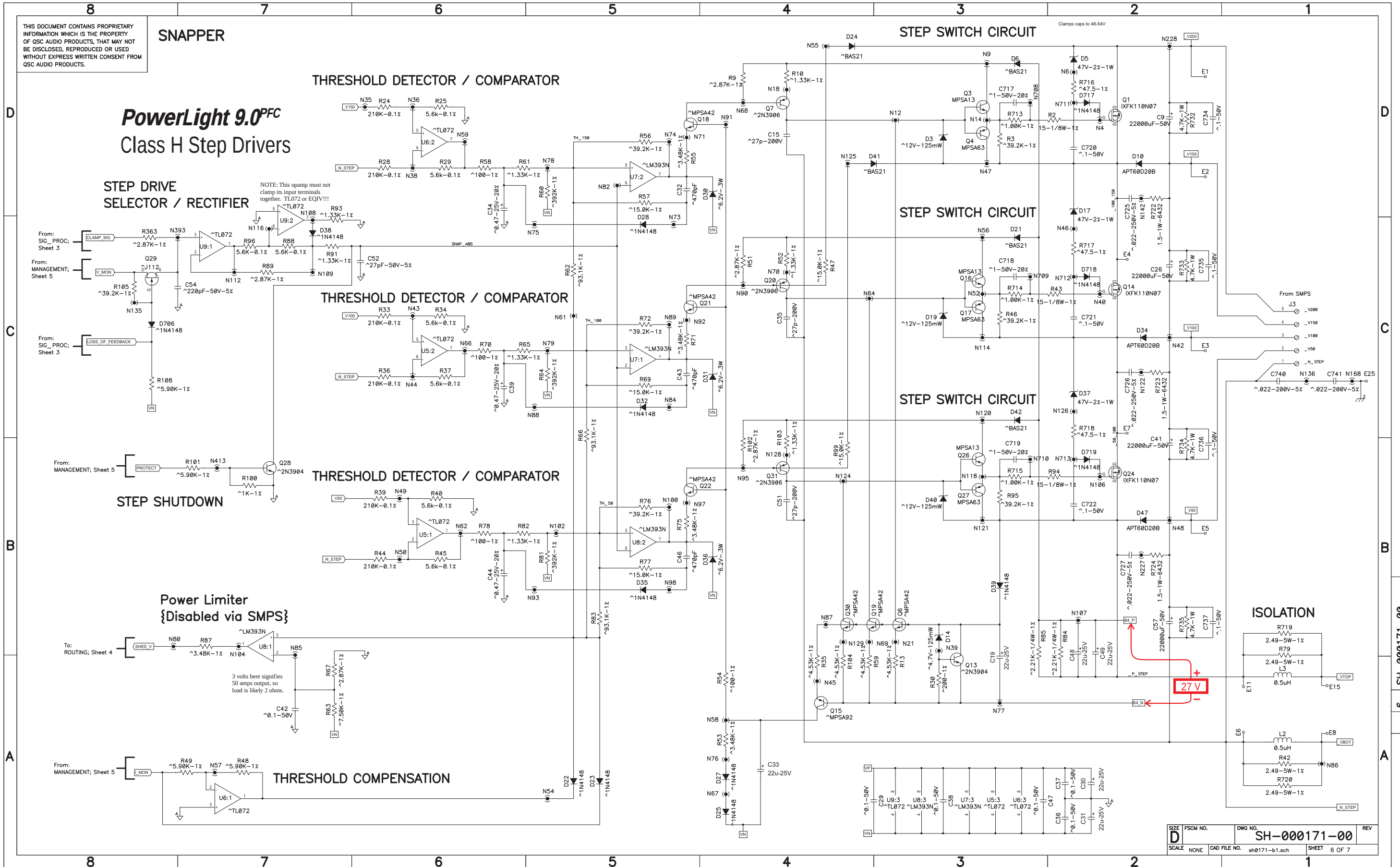
Clamps caps to 48-54V

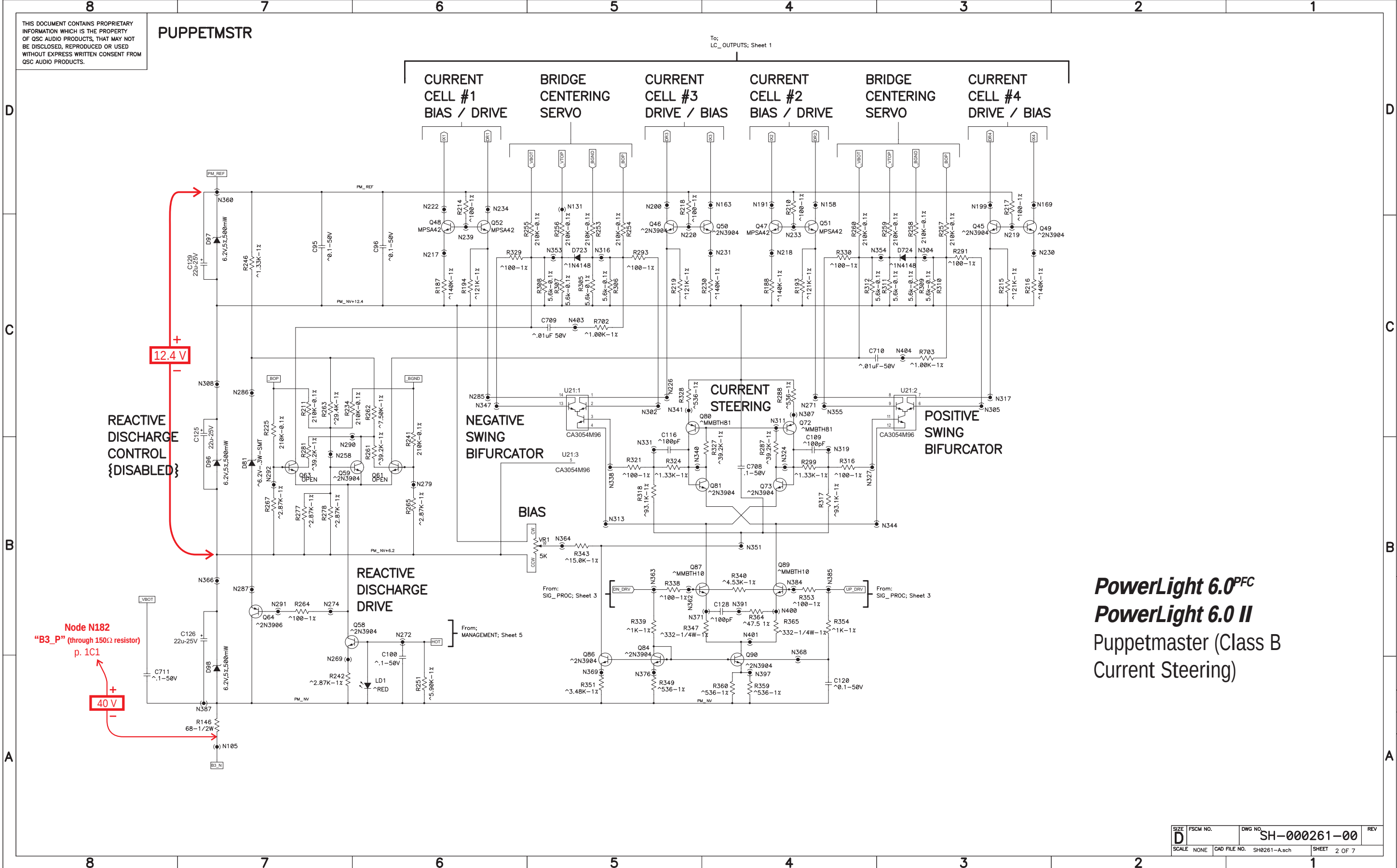
STEP SWITCH CIRCUIT

STEP SWITCH CIRCUIT

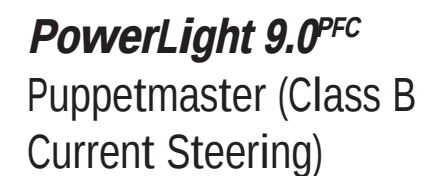
ISOLATION

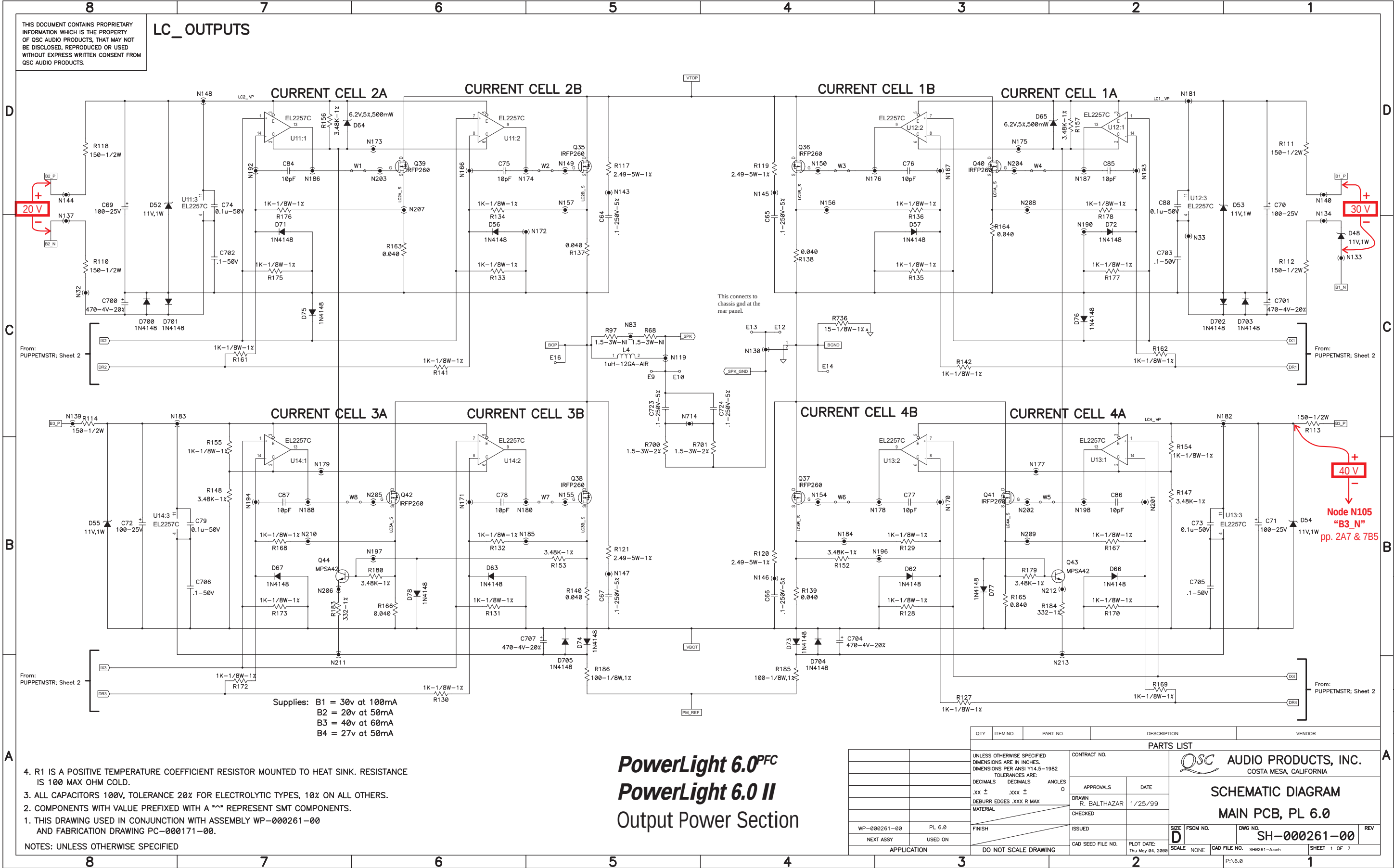
SIZE D FSCM NO. DWG NO. SH-000261-00 REV
SCALE NONE CAD FILE NO. SH0261-A.sch SHEET 6 OF 7

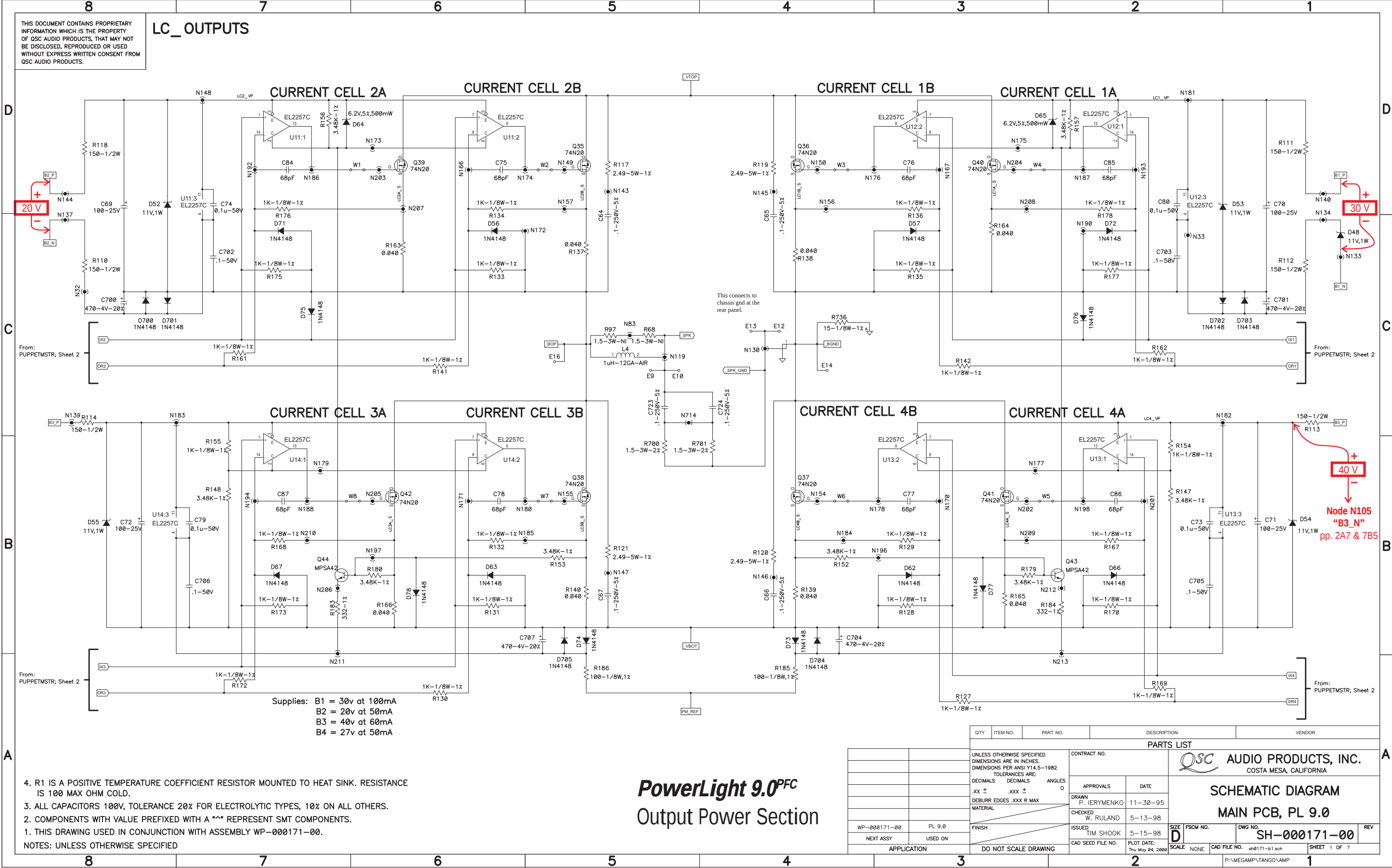




PUPPETMSTR

1





MANAGEMENT

AMPLIFIER ACTIVATION CIRCUIT

From

FAN CONTROL

To
Ex

OVERTEMP KILL /
REACTIVE DISCHARGE CONTROL

Node N27
"+15V_"
p_4B7

THERMAL

Node N284
“-15V_”
p. 4B7

15 V

11 V

DIFF-AMP BIAS

Current gain: 22,460.
3.0 mA total set current
results in 68A peak output.
Minimum at full cut-back is
250 uA or 5.6A output.

CURRENT CUTBACK

PROTECT DRIVE

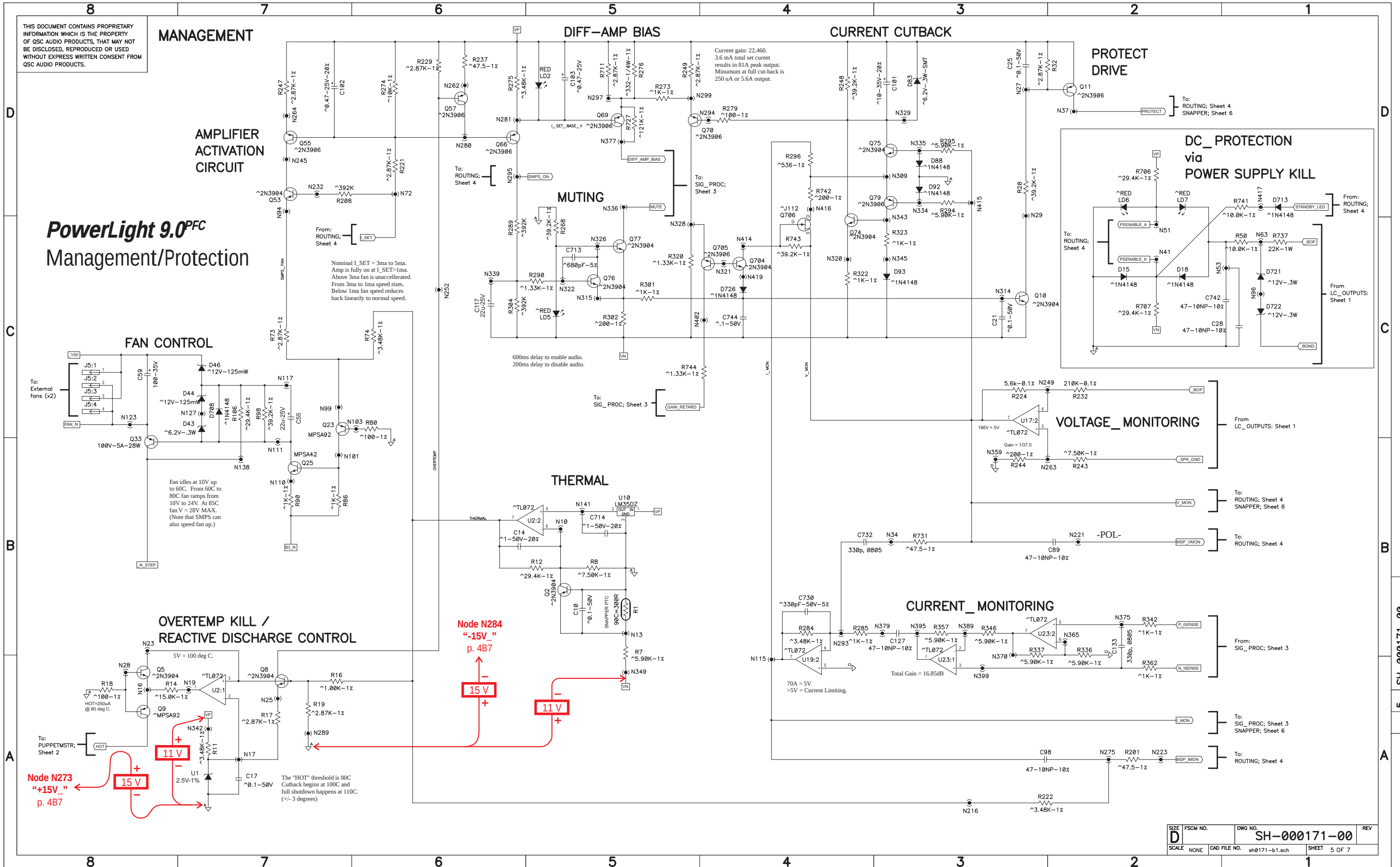
To:
ROUTING; Sheet 4
SNAPPER; Sheet 6

DC_PROTECTION
via
POWER SUPPLY KILL

VOLTAGE MONITORING

CURRENT MONITORING

SIZE D	FSCM NO.	DWG NO. SH-000261-00	REV
SCALE NONE	CAD FILE NO. SH0261-A.sch	SHEET 5 OF 7	



A

NOTES: UNLESS OTHERWISE SPECIFIED

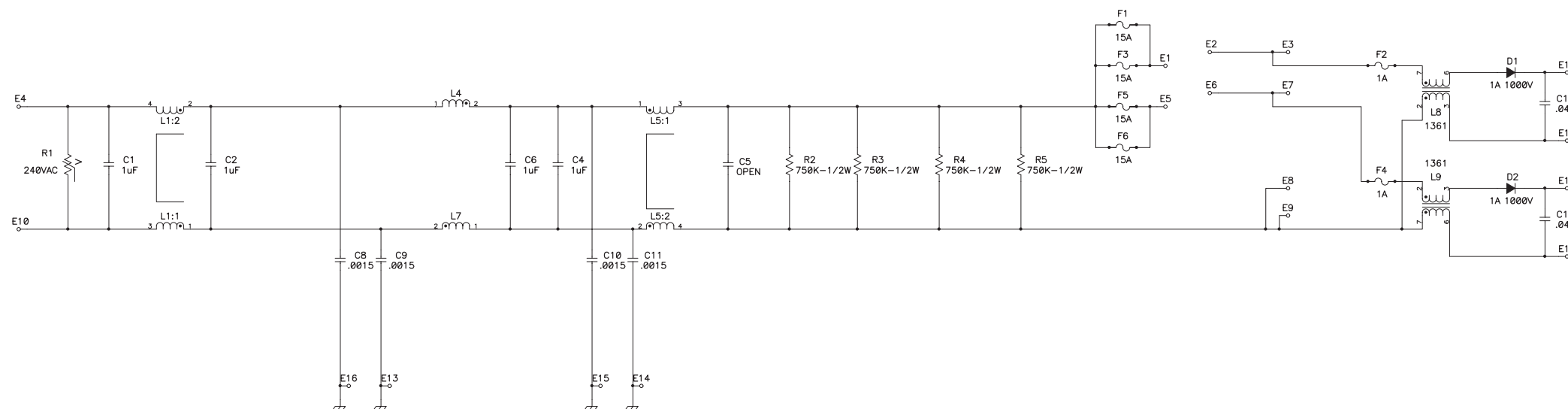


REV	1	SH	SH-000177-00	DWG NO.
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A

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PowerLight 6.0^{PFC}
PowerLight 6.0 II
PowerLight 9.0^{PFC}
 Line Filter, 230 volts



1. THIS DRAWING USED IN CONJUNCTION WITH ASSEMBLY WP-000181-00
AND FABRICATION DRAWING PC-000177-00.

NOTES: UNLESS OTHERWISE SPECIFIED

QTY		ITEM NO.		PART NO.		DESCRIPTION		VENDOR	
PARTS LIST									
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES DIMENSIONS PER ANSI Y14.5-1982 TOLERANCES ARE: DECIMALS DECIMALS ANGLES .XX ± .XXX ± 0 DEBURR EDGES .XXX R MAX MATERIAL				CONTRACT NO.		 AUDIO PRODUCTS, INC. COSTA MESA, CALIFORNIA			
WP--000181--00 PL 9.0 NEXT ASSY USED ON APPLICATION				APPROVALS DATE DRAWN ERIC MENDENHALL 2-9-98 CHECKED RCM 5-14-98		SCHEMATIC DIAGRAM PL9.0 LINE FILTER 230VAC			
				ISSUED TIM SHOOK 5-15-98 CAD SEED FILE NO.					
FINISH				SIZE D TIM SHOOK May 04, 2008		FSCM NO. DWG NO. SH-000181-00		SHEET 1 OF 1	
DO NOT SCALE DRAWING				SCALE		CAD FILE NO. SH181-B.sch			

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CH 1

CH 2

CH1_+
J5
TBD

CH1_-
J6
TBD

CH2_+
J4
TBD

CH2_-
J3
TBD

E3
E2

E4
E5

C1
.1-250V-5%

C2
.1-250V-5%

J2
Ø1- 1+Ø
Ø2- 2+Ø
JACK-SPEAKON

J1
Ø1- 1+Ø
Ø2- 2+Ø
JACK-SPEAKON

CHASSIS_GND
E1

3
2
1

↓

PowerLight 6.0^{PFC}
PowerLight 6.0 II
PowerLight 9.0^{PFC}
Output Board

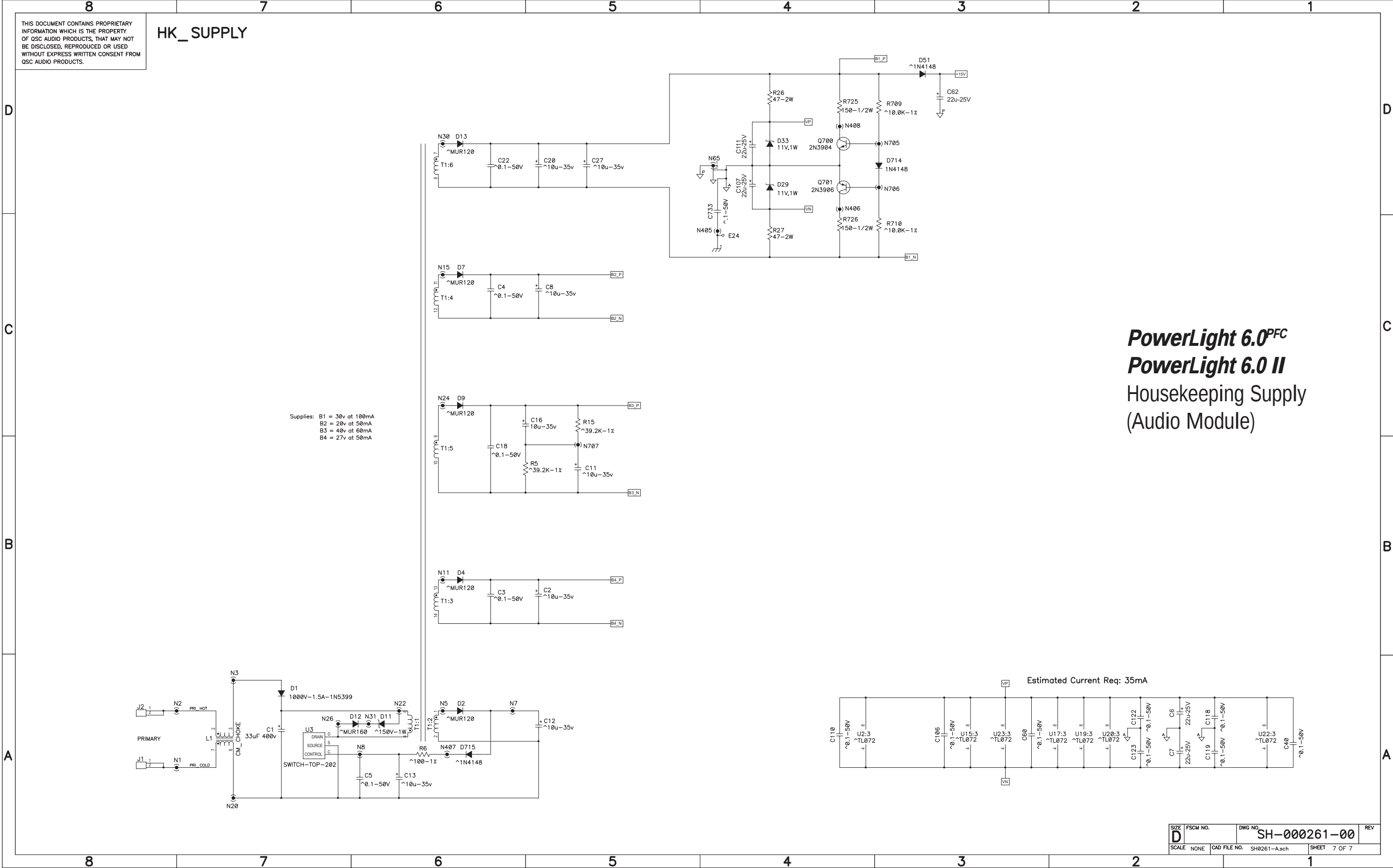
1. THIS DRAWING USED IN CONJUNCTION WITH ASSEMBLY WP-000179-00 AND FABRICATION DRAWING PC-000179-00.

NOTES: UNLESS OTHERWISE SPECIFIED

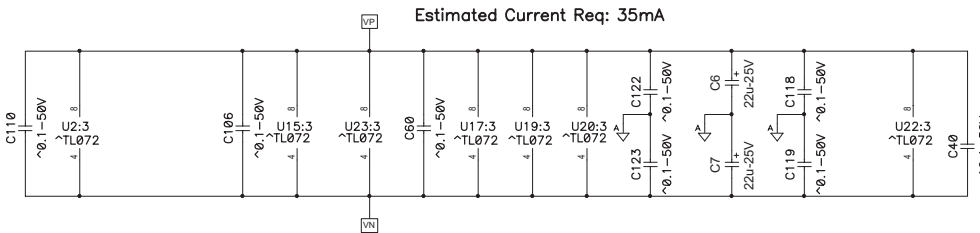
QTY	ITEM NO.	PART NO.	DESCRIPTION	VENDOR	
PARTS LIST					
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. DIMENSIONS PER ANSI Y14.5-1982 TOLERANCES ARE: DECIMALS DECIMALS ANGLES .XX ± .XXX ± ° DEBURR EDGES .XXX R MAX MATERIAL			CONTRACT NO.	QSC AUDIO PRODUCTS, INC. COSTA MESA, CALIFORNIA SCHEMATIC DIAGRAM OUTPUT PCB	
			APPROVALS		DATE
			DRAWN A. CERRILLO		6-11-97
			CHECKED		
FINISH			ISSUED		
CAD SEED FILE NO.			PLOT DATE: Thu May 04, 2000		

WP-000179-00	PL 9.0
NEXT ASSY	USED ON
APPLICATION	DO NOT SCALE DRAWING

SIZE B	FSCM NO.	DWG NO. SH-000179-00	REV
SCALE NONE	CAD FILE NO. sh0179-A.sch	SHEET 1 OF 1	



HK_SUPPLY



SIZE D	FSCM NO.	DWG NO. SH-000171-00	REV
SCALE NONE	CAD FILE NO. sh0171-b1.sch	SHEET 7 OF 7	

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D

C

B

A

D

C

B

A

PowerLight 6.0^{PFC} Power Supply

SIZE	FSCM NO.	DWG NO.	REV
D		SH-000262-00	
SCALE	NONE	CAD FILE NO. SH026202.sch	SHEET 2 OF 2



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