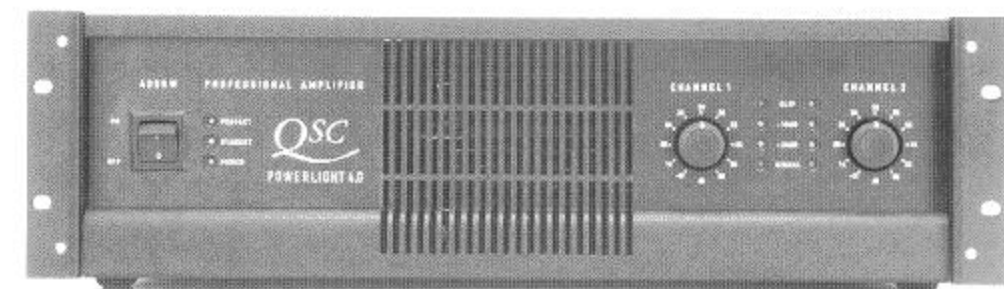


# FIRST LOOK: QSC POWERLIGHT 4.0

THE LATEST ADDITION to the PowerLight Series of amplifiers from QSC Audio Products, the PowerLight 4.0 (S2998), is the largest amp in that series (rated at 1400 watts per channel into four ohms) and the most powerful amplifier that QSC has built to date. In spite of its high power output, the PowerLight 4.0 lives in a chassis that is three rack spaces high and weighs in at only 30 pounds. But beyond the serious muscle contained within the 4.0, there is an intelligence of design that can be taken advantage of by both touring sound reinforcement companies and club-size PA operators.

An amplifier with this kind of power should be properly connected, and QSC helps this by screening the rear-panel Neutrik Combo jacks with the XLR pinout (pin two hot, like it's supposed to be). Barrier strip input terminals are also present, and speaker outputs are on dual binding posts. The 4.0 can be operated in either parallel, bridged, or stereo modes and a three-position switch on the back panel selects which of these modes is active. The binding post outputs are "touch proof," and, at these kinds of power levels, this is a good idea — you don't want to be accidentally holding the posts of an amplifier that can deliver two kilowatts. The



posts will accept a dual-banana plug for either stereo or bridged-mono output and the panel is clearly labeled with which of the red posts is "hot" during bridged operation.

The PowerLight 4.0 features QSC's exclusive PowerWave Switching Technology. PowerWave Technology allows the 4.0 to run at an AC mains voltage as low as 90 volts with no audible effects on amplifier performance. The capacitors in this power supply charge roughly 230,000 times per second (much faster than a conventional power supply), which means that when high-power, low-frequency audio signals hit the input, the PowerLight 4.0 is fast enough to deliver power to your speakers without running out of gas.

On the rear panel of the 4.0 are a pair of terminals marked "Power Supply Control." Shorting these two terminals together (perhaps with a latching switch) puts the amp in standby mode.

The front-panel standby LED will light, and the amp draws only a small amount of current from the AC mains. Opening the circuit between these terminals turns the power supply (and amplifier) on once again. While in standby, the caps in the power supply remain charged, so there is no inrush of current when the

channels of continuous monitoring for input and output signal levels, amplifier temperature, power status, and presence of opens or shorts. If a problem is detected, the CM16 routes the 4.0's current and voltage signals to a DSP for real-time impedance analysis. If that is not enough, you can add the MSP AD8 Audio Drive Processor that

## QSC MANAGES TO PACK PLENTY INTO ITS MOST POWERFUL AMP TO DATE

BY STEVE LA CERRA

amp turns back on. This control circuit can easily be daisy-chained to control multiple PowerLight amps.

The one unusual connector on the rear of the PowerLight 4.0 is an HD-15 instrumentation interface that allows the amp to communicate with QSC's Multi-Signal Processors, or MSPs. The MSPs (controlled via PC) can perform various functions in a multiamp audio system. The MSP CM16 provides 16

(via 20-bit A/Ds, D/A's and 24-bit DSP) can apply metering, polarity reverse, delay, parametric EQ, crossover, attenuation, and peak limiting to eight PowerLight 4.0 units (the MSP SD8/16 combines the functions of both units in one package).

By introducing the PowerLight 4.0, QSC has created the lightest amplifier in the industry capable of producing this level of power. But they have also created an amplifier with truly useful features for both touring and club-type PA systems. The 4.0 is a building block in a sound system that is destined to expand.

For more information, contact QSC at 1675 MacArthur Blvd., Costa Mesa CA, 92626-1468. Tel: 714-754-6175. Circle EQ free lit. #124.

