



Intercom for Sound, Lighting and Production Professionals

PS300 & PS301
Intercom Power Supplies
(PS301 with Program Input)

Instructions

Critical Issue

**Before Connecting your PS300 or PS301 to the Electrical Outlet
Confirm that the Voltage Switch on the Rear Panel
is in the Correct Position for your Local Voltage
and that the proper fuse is installed.
(110/120V - 2A, 250V) (220/240V - 1A, 250 V) - then turn on the power (mains) switch
on the left front of the PS301**

**The Following Instructions are for the PS301 see the next page for the
PS300 which is a much simplified product.**

- 1. Do not connect any of the intercom cabling to the PS301 at this time. Connect the PS301 to the AC source (mains) and turn on the front panel power switch. Observe the first column of LEDs headed "Status". The top LED (green) should be lit, indicating that the power supply is providing the 24 VDC operating current. The 3 lower (red) LEDs should be dark.**
- 2. Connect your intercom circuit cabling to the rear panel XLRs marked A, B and/ or C. Once again check the "Status" LEDs on the front panel. If any are lit (red), that indicates a wiring fault on the lit circuit. Remove that intercom cable at once and check the circuit cabling for Pin1 shorts-to-ground (earth) and for Pin1/Pin2 reversals in male/female connection points, the most common sources of such problems.**
- 3. Decide whether you want to use each of the three circuits independently or you want to combine Circuits A & B or combine all 3, and set the front panel "Link" switch accordingly. This can all be changed later and "on-the-fly". Except for dealing with Program Audio input, you are ready to power up your intercom system. With 2.4A of full-time available current, you can supply as many as 60+ beltpacks plus some loudspeaker stations and Xenon beacons (Blazons).**
- 4. The individual red LEDs to the left side of the front panel will indicate any problem with each of the circuits, and, should any problem cause overheating or the possibility of damage to power supply components, that circuit will be shut down until the problem is resolved. Other circuits will continue to operate.**

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5. Your PS301 is capable of distributing Program Audio to each, any or all of the 3 circuits and to control the level of program audio going to each independently. The relative level of the program audio going to each circuit can be monitored via the LED meter provided for each circuit. The source of the front of the program audio can be a feed from the Front of House audio console, or a strategically placed 'run-of-the-show microphone or any other balanced 200 to 600 ohm source. A rear panel dip switch will allow you to switch between line level and mic. level. *(If your source is high impedance, unbalanced, you will require an external converter.)* Program feed enables your technical crews to anticipate cues by following the performance, permits the director at the Master Station to hear the front of house feed, and serves any number of other purposes such as synchronization with video or feeds from remote locations.

6. To operate properly Pro Intercom audio circuits must all terminate in 200Ω . (For a technical explanation, see our paper on the website.) This allows you to add stations, or remove them, without a change in the overall level of the system and extends the distance over which you can send a noiseless signal. Each of the 3 circuits in a PS301 has its own 200Ω termination circuit, so that you can use it independent of the other 2 circuits. When you combine A+B or A+B+C, the PS301 automatically adjusts the termination impedance so that the total remains 200. But there may be circumstances where you want to power a station which already has a termination circuit (such as an underpowered master station). In this case you can go to the back panel of the PS301 and 'lift' one or more of the termination circuits by means of a dip switch.

7. Your PS301 should live comfortably with other audio & video equipment in your rack. The power supply is 'linear' or 'analog' with a toroidal transformer, regulators and rectifiers rather than 'switch-mode' so the strayfield radiation is minimized. Temperature is also monitored and well regulated.

8. The PS301 is fitted with a side mounted cooling fan which is unlikely to ever run because of the massive heat sinks. The fan comes on automatically, should it ever be needed.

The PS300

The PS300 is essentially identical to the PS301, except that it does not have a program input or program distribution capabilities. All of the above paragraphs, except paragraph 5, also apply to the PS300.