

PS-20 Power Supply



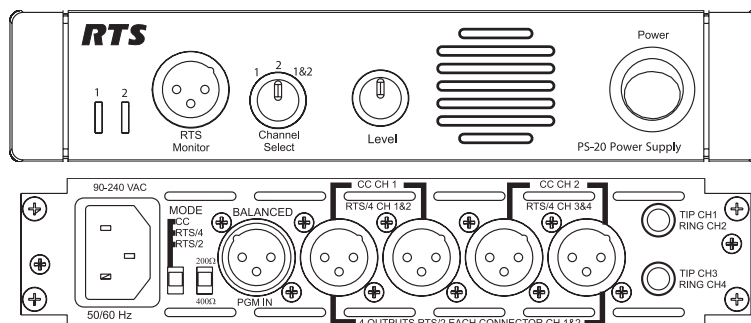
The RTS PS-20 is a complete independent **TW** (Two-Wire) power supply. The PS-20 features 2- and 4-channel operation, RTS monitoring, 2-channel program input, audio linking, and 3-mode operation: RTS 2-channel, RTS 4-channel and Clear-Com mode. It also has double the power output of the PS-31 per channel, this increases the number of user stations and beltacks which can be connected substantially.

The PS-20 features two (2) channels of communication where both channels are wet, meaning there is power on each channel (RTS 2-channel mode). In RTS 4-channel mode, the audio signals and DC exist on the same wire. The PS-20 can also be switched into Clear-Com mode. The PS-20 has a 3-pin XLR (male) connector on the front of the system, where a RTS user station can connect and monitor activity on either or both channels. A single PS-20 power supply has 1.8 ampere per channel which means the user can power up more stations (see specifications for details). If additional user stations or beltacks are needed, two (2) PS-20's can be joined together to double the power capability. A pair of standard stereo plug connectors are available on the back of the power supply to connect two PS-20's through audio linking as well. The PGM IN (3-pin XLR female Program Input) connector can be used to send audio to both CH 1 and/or CH 2.

Features

- The PS-20 is selectable between RTS 2-channel, RTS 4-channel and Clear-Com mode.
- There is an audio link connection ($\frac{1}{4}$ -inch (6.3 mm) stereo plug) on the back of the unit.
- The 3-pin XLR monitoring output connector on the front of the PS-20 allows the user to connect a RTS user station to monitor a channel or both channels.
- There is a green status indicator for each channel on the front of the unit. Each of these indicators will remain lit during normal operation, but will turn red during a channel current overload condition. Output current is automatically reduced during an overload, and normal operation is restored when the overload is removed.
- There is a program input connector on the rear panel. This can be used to connect a device that both channel 1 and channel 2 can listen to at the same time. A channel select switch on the front panel assigns the program to either or both channels. A level control adjusts the program level to the intercom channel.
- Intercom channels (user stations) are connected to the rear panel of the PS-20 with 3-pin XLR connectors.
- The impedance select switch on the rear panel allows each channel to be set for 200 Ω or 400 Ω operation. Select 200 Ω for each channel operated independently. Select 400 Ω for each channel connected to another channel.

Line Drawings



Specifications

General

Input Voltage: 90 to 264VAC, 50 to 60Hz

Output Voltage: 28VDC to 32VDC

Output Current: 1.8 Amps Maximum per channel

Termination Impedance: Selectable 200Ω/400Ω

1.8 Amps maximum per channel

Ripple: < 0.2V

Program Input Levels:

Nominal +2dBu

Balanced, High Impedance >10kΩ

Two-Wire Output Levels:

Nominal 30VDC

Unbalanced, selectable 200Ω/400Ω

Monitor Output:

Nominal Gain of 0 dB for 1.0Vrms input level on the program input. 30VDC nominal, 100mA maximum.

Audio Link: Nominal input 2dBu with a Gain of 0 dB

Connections

Type: 3-pin XLR male (RTS 2-channel Mode)

Pin 1: Common for Audio and DC

Pin 2: 30VDC and Mixed Audio Channel 1

Pin 3: 30VDC and Mixed Audio Channel 2

Type: 3-pin XLR male (RTS 4-channel Mode)

Pin 1: Common for Audio and DC

Pin 2: 30 VDC and Mixed Audio Channel 1 or 3

Pin 3: Mixed Audio Channel 2 or 4

Type: 3-pin XLR male (Clear-Com Mode)

Pin 1: Common for Audio

Pin 2: 30VDC

Pin 3: Mixed Audio Channel 1 or 2

Program Input

Type: 3-pin XLR female

Pin 1: Common

Pin 2: Balanced Audio + Input

Pin 3: Balanced Audio - Input

Audio Link

Input ¼-inch Stereo Phono Jack

Tip: CH 1

Ring: CH 2

Sleeve: Ground

Output ¼-inch Stereo Phono Jack

Tip: CH 1

Ring: CH 2

Sleeve: Ground

AC Input

Type: Universal AC Plug

Pin 1: Hot

Pin 2: Neutral

Pin 3: Earth Ground

Monitor Output

Type: 3-pin XLR male (RTS 2-channel Mode)

Pin 1: Common for Audio and DC

Pin 2: 30VDC and Mixed Audio Channel 1

Pin 3: 30VDC and Mixed Audio Channel 2

Type: 3-pin XLR male (RTS 4-channel Mode)

Pin 1: Common for Audio and DC

Pin 2: 30VDC and Mixed Audio Channel 1

Pin 3: Mixed Audio Channel 2

Type: 3-pin XLR male (Clear-Com Mode)

Pin 1: Common for Audio

Pin 2: 30VDC

Pin 3: Mixed Audio Channel 1 or 2

Environmental

Operating Temperature: 0°C to 50°C (32°F to 122°F)

Storage: -40°C to 70°C (-40°F to 158°F)

Humidity: 0 to 95%, non-condensing

Dimensions and Finish

Height: 1.72 in (44 mm)—1 RU (Rack Unit)

Width: 8.186 in (207.9 mm)

Weight: Under 5 lb

Finish: Thermoplastic front panel, Aluminum case, RTS light gray paint—black silkscreen.

Mounting: MCP style rack kit or (included rubber adhesive feet).

Order Information

PS-20 • PS-20 Power Supply • US Power Cord

PS-20-EU • PS-20 Power Supply • Euro Power Cord

PS-20-UK • PS-20 Power Supply • UK Power Cord

The specification information is preliminary and is subject to change without notification.
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