



## PowerStar Mini Triple Play™

High Capacity, Quiet Power Distribution for Bag & Small Cart Use

- Three (3) Power Inputs, each with Up to 5 Amp Capacity
- Nine (9) Main Power Outputs, One always on
- 10 Amps (148 watts) Global Power Output on Main Outputs
- Three (3) USB Power Outputs with 2 Amp Capacity Each
- Polyfuse Protection on All Inputs
- Polyfuse Protection on All Outputs
- PSC Quiet Power Technology Filtering on All Outputs
- Blue LED Battery Voltage Meter with Low Voltage Blink Indicator
- Three-way Mountable Belt Clip for Easy Bag Mounting
- Robust Aircraft Aluminum Housing with Powder Coat Finish
- Made in the U.S.A.

Thank you for purchasing the new PSC PowerStar Mini Triple Play. We believe this new product represents the most complete, versatile and well engineered miniature power distribution center ever made for field audio production both in bag and on small cart setups. This device has been designed to provide you with many years of use in the field.

The new PSC PowerStar Mini Triple Play power distribution system provides a convenient way of distributing clean, quiet, reliable 12Vdc power to all of your ENG Bag and Small Cart based audio equipment from one or more rechargeable batteries. The PSC PowerStar Mini Triple Play features nine main outputs. Each of these outputs is designed to deliver up to 2 amps of continuous current. The PowerStar Mini Triple Play has a global (total) current limit of 10 amps. A top panel mounted power switch controls the entire operation. This power switch is a three-way design. When switched to the left, only the USB power outputs connectors will be powered on. This allows continued charging of your USB devices such as an iPhone™ while the rest of your system is powered off. When switched to the center position, everything is turned off including the USB ports. When switched to the right side, everything including the USB connectors is powered on. There is also one connector that is always on and is not controlled by the power switch. This connector is easily identified by the blue ring surrounding the connector.

The PowerStar Mini Triple Play features PSC's exclusive Silent Power Technology™ designed to filter out unwanted switch mode noise and RF interference from your power lines. These exclusive PSC filters will ensure you of clean, quiet recordings in the field by minimizing unwanted inter-modulation noise, RF interference and other noise sources. Our RF filtering will provide better than 34dB of RF isolation between the outputs from 100Mhz to 900Mhz. We are the only company in our industry to go to the trouble and expense of offering this added benefit. Though these filters will not eliminate all noise, they do eliminate most inter-modulation noise found in many common power systems. In addition, each of the PSC PowerStar Mini Triple Play's power outputs are individually Polyfuse protected. Because of this, if one output is shorted, the remaining outputs will function normally. Power input is via three 4 pin mini XLR connectors. Optional NP-1 battery cups, and AC Power Supply and an assortment of PSC power cables are available. The PowerStar Mini Triple Play features reverse polarity protection, genuine Switchcraft™ connectors, a sturdy aircraft aluminum case, tough powder coat finish and a removable stainless steel belt clip with three mounting positions for flexibility in the field.

## **POWER INPUTS:**

The PSC PowerStar Mini uses three (3) Switchcraft mini 4 pin male chassis XLR for power input. This connector is wired as follows: Pins 1 and 2 are negative (-) ground and pins 3 and 4 are positive (+). These pins are doubled up for redundancy and to lower connection impedance. You can use one, two or all three input connectors at any given time. Each input connector is rated for up to 5 amps of input current and is both polarity and Polyfuse protected. By combining inputs, you can support larger current loads. Most NP-1 batteries are internal protected (limited) to a maximum output current of about 4.7 amps. By using two NP-1 batteries, you can now safely power up an equipment package that draws up to 9.4 amps. Or

you can power smaller setups for longer battery run times by using multiple NP-1 batteries on the inputs. In addition PSC offers an AC Power Supply that is equipped with a TA4F connector that will allow AC powering of the PowerStar Mini Triple Play when AC power is available. This is convenient when you are doing long sit down interviews, etc.



**THREE (3) POWER INPUT CONNECTIONS ON TB4M CONNECTORS**

**POWER OUTPUTS:**

The nine (9) output connectors are genuine Switchcraft tm coaxial power connectors. They feature a 2.5mm center pin and a special threaded locking sleeve. They are wired as follows: Center Pin Positive (+) and Outside Ring Negative (-). These connectors must be used with long barrel 2.5mm mating connectors. All cables provided by PSC incorporate these features.

The ninth (9<sup>th</sup>) output connector is surrounded by a blue ring. We suggest you use this connector to power your audio mixer if it contains a time code generator and requires constant power for this TC generator to operate properly. Please consult with your recorder manufacturer to determine if this constant power is required.



**POWER OUTPUT CONNECTORS SHOWN**

## USB POWER OUTPUT CONNECTORS:

The PSC PowerStar Mini Triple Play is equipped with three (3) USB power outputs. One of these USB power outputs is located on the top surface of the unit near the main power switch and LED meter. This location is convenient for use with items that require frequent plugging and un-plugging such as your cell phone. Additionally, there are two more USB power outputs located on the front surface of the unit near the other main power outputs. Each of these USB connectors can supply up to 2 amps of output current making them very useful in the field. With up to 2 amps of output power, you can use and charge nearly all available USB powered devices. Offering a total of three, 2 amp outputs with a total current capacity of 6 amps is another feature you will find exclusively on a PSC power distribution product.



**DUAL USB CONNECTORS ON MAIN SURFACE**



**SINGLE USB ON TOP SURFACE**

## VOLT METER & LOW BATTERY INDICATION:

The PSC PowerStar Mini Triple Play includes a small 3 digit, Blue LED volt meter. This meter is conveniently located on the top panel of the unit right above the main power switch. It allows the operator to monitor their battery voltage with just a quick look at the meter. This meter was designed to have very low power consumption so it can operate at all times while the unit is turned on.

The Blue LED voltage meter also serves another function. When your battery discharges to a pre-determined point, the meter will begin to flash on and off slowly. This is your indication that your battery is nearly discharged and should be replaced at your earliest convenience. Inside the PowerStar Mini Triple Play there is a small jumper on the printed circuit board. This jumper

selects the battery type. There are two choices, Lithium Ion or Sealed Lead Acid (SLA) and LiFE (Lithium Iron Phosphate). The Lithium setting is to be used with most NP-1 style Lithium batteries. This is the factory default setting when we build and ship the PSC PowerStar Mini Triple Play. In this setting, the volt meter will begin to blink on and off when the battery voltage drops to approximately 13 Volts DC. This blinking meter function serves to warn the operator that their battery and/or batteries are nearly fully discharged and should be replaced by fully charged batteries at the earliest convenience. When the internal jumper is set to the SLA (or LiFE) setting, the volt meter will begin blinking when the battery voltage drops to approximately 11 Volts DC. This setting is compatible with both SLA and LiFE batteries. Once again, if the meter begins to blink on and off, the operator should also change out their batteries for fully charged units.



**BLUE LED BATTERY VOLTAGE METER, BLINKS WHEN BATTERIES ARE LOW**

**TOTAL CURRENT EQUALS MAIN OUTPUT CURRENT + USB DC to DC INPUT CURRENT:**

The USB 5Vdc voltage is supplied via a DC to DC converter. Therefore, the current draw from your NP-1 or other source is less than the USB output current. This DC to DC converter operates from 10 to 14 volts input and provides a 5 volts output. The output current and voltage are inversely proportional to the input current and voltage. Here are some typical NP-1 battery current draws as they relate to the USB outputs:

USB Output Current	NP-1 Current Draw
1 Amp	0.45 Amp
2 Amps	0.9 Amps
4 Amps	1.8 Amps
6 Amps (maximum USB Current)	2.7 Amps



Please note that your PowerStar Mini Triple Play will draw a total current that is made up of the main power outputs as well as the USB DC to DC converter input current. So, for example, if your main equipment is drawing 3 amps and you are using 1 Amp of USB power, your NP-1 or other battery will see an approximate 3.45 amp load. This product is rated for a global maximum current rating of 10 Amps. If you are using the full capacity of the USB outputs (unlikely) you still have 6.3 amps of current available for use on the main outputs. Please note that all of these maximum ratings assume that you have enough battery capacity to feed the PSC PowerStar Mini Triple Play. In other words, your battery (or batteries) are the main limitation with this unit. While this distribution box is capable of distributing large amounts of current, you may have to run two or even three NP-1 style batteries if your equipment load is high enough. **Please note that most NP-1 batteries have an internal current limit of approximately 4.8 amps for each NP-1 battery.**

### PSC QUIET POWER TECHNOLOGY tm

PSC is the only company to provide you with Quiet Power Technology tm. Simply put, we understand the delicate power requirements of today's precision audio equipment. In order to ensure clean, quiet power delivery to your audio equipment, we design and install power filtering into every output connection in all of our power distribution products. Though very compact in size, even our PowerStar Mini Triple Play incorporates filtering on each output. These filters provide better than 34dB of RF isolation between outputs from 100Mhz to 900Mhz. This will provide the user with cleaner, quieter power. These filters will help minimize intermodulation noise, RF interference and other noise sources from ruining your recordings. While this filtering is not always required in all situations, isn't it a good idea to be prepared for the worst case scenario? At PSC, we think so and we put our customer's needs first.



**PSC's WELL ENGINEERED CIRCUIT BOARD WITH QUIET POWER™ TECHNOLOGY**

## **BELT CLIP:**

The PSC PowerStar Mini Triple Play is equipped with a removable stainless steel belt clip. For your convenience, this belt clip can be mounted on the rear of the unit, or on either side of the unit. This makes mounting the PowerStar Mini Triple Play inside your field bag a much easier job with added flexibility that other companies do not offer. If you decide to remove the belt clip, please keep the screws for later re-use. **Warning! Use of longer than the PSC supplied standard screws may damage the PowerStar Mini Triple Play and this damage will not be covered under our warranty.**



**VARIOUS BELT CLIP MOUNTING POSITIONS SHOWN FOR REFERENCE ONLY**

## **REVERSE POLARITY POTECTION:**

The PSC PowerStar Mini is equipped with heavy duty input steering diodes. Used in conjunction with a Polyfuse, this will protect your equipment from reverse polarity. In the unlikely event that you somehow reverse the polarity of the input power connection, the unit will simply not power up and no damage to the PSC unit or your equipment will occur. These diodes were chosen for their super high efficiency. They offer the highest efficiency we could find and were originally designed for use on super high efficiency solar panel arrays.

### **OPTIONAL NP-1 BATTERY CUP:**

Also available from PSC is an optional NP-1 Battery Cup for use with your new PSC PowerStar Mini Triple Play. This NP-1 battery cup works with all NP-1 batteries and comes pre-wired with a TA4F connector for use with the PowerStar Mini. You may choose to use one (1), two (2) or even three (3) of these NP-1 battery cups with your new PowerStar Mini Triple Play. The three inputs on the PowerStar Mini Triple Play are redundant in nature and each will handle up to 6 amps of input current.

**Please note that most NP-1 batteries have an internal current limit of approximately 4.8 amps for each NP-1 battery.**



**PSC NP-1 BATTERY CUP WITH TA4F CONNECTOR**

### **OPTIONAL AC POWER SUPPLY**

PSC offers an optional AC power supply that is equipped with a 4 pin female mini XLR connector. This power supply can be connected to any one of the three power inputs. It will operate your equipment with total current draw of up to 6 Amps. This optional AC power supply is perfect for long sit down interviews and other stationary jobs. The AC power supply has a universal AC input so it will operate virtually world-wide. Its input range is 90 to 260Vac.





**OPTIONAL AC POWER SUPPLY. PROVIDES UP TO 6 AMPS OF CURRENT @ 14.8Vdc**

**PSC PART NUMBERS:**

<b>FPSM3P</b>	POWERSTAR MINI TRIPLE PLAY
<b>FPSCPSM-NP1</b>	NP-1 BATTERY CUP w/ TA4F CONNECTOR
<b>FPSM3PAC</b>	AC POWER SUPPLY
<b>FPSCPSM-CAB1</b>	PSM OUTPUT CABLE w/ R.A. POWER PLUG FOR USE WITH LECTROSONICS, M3, FP-32A, FP33, ETC
<b>FPSCPSM-CAB1Y</b>	DUAL PSM OUTPUT CABLE w/ TWO R.A. POWER PLUG FOR USE WITH LECTROSONICS, M3, FP-32A, FP33, ETC.
<b>FPSCPSM-CAB2</b>	PSM OUTPUT CABLE W/ 4 PIN HIROSE FOR USE WITH M4mkII, ALPHAMIX, NEWER 442, 302, ETC

## **SPECIFICATIONS:**

<b>SIZE:</b>	<b>5.265" x 1.600" x 1.250" (133.7mm x 40.6mm x 31.7mm)</b>
<b>WEIGHT:</b>	<b>6oz (170gm)</b>
<b>MAIN OUTPUT CURRENT:</b>	<b>10 Amp Global Maximum, 2 Amp Maximum per output</b>
<b>USB OUTPUT CURRENT:</b>	<b>6 Amp Global, 2 Amp maximum per output</b>
<b>POWER SWITCH:</b>	<b>Recessed Toggle,</b>
<b>RF FILTERING:</b>	<b>Better than 34dB Isolation from 100Mhz to 900Mhz</b>
<b>BELT CLIP:</b>	<b>Stainless Steel, removable</b>
<b>INPUT CONNECTORS:</b>	<b>TB4M, wired Pins 1&amp;2 Negative (-), Pins 3&amp;4 Positive (+)</b>
<b>OUTPUT CONNECTORS:</b>	<b>Switchcraft coaxial power connectors, Center Positive (+)</b>

### **TERMS OF USE:**

THE IMPROPER CONNECTION OF THIS POWER SUPPLY TO AUXILIARY EQUIPMENT MAY RESULT IN DAMAGE TO SAID EQUIPMENT AND/OR PERSONAL INJURY. THIS PRODUCT IS DESIGNED TO BE OPERATED BY PROFESSIONALS IN THE FILM AND TELEVISION INDUSTRIES. THE PSC POWERSTAR MINI TRIPLE PLAY SHOULD ONLY BE OPERATED AFTER READING AND UNDERSTANDING THIS ENTIRE INSTRUCTION MANUAL. THE OPERATOR OF THIS POWER SUPPLY ASSUMES ALL RESPONSIBILITY AND LIABILITY FOR PROPER USE AND OPERATION OF THIS EQUIPMENT! PROFESSIONAL SOUND CORPORATION AND/OR ITS EMPLOYEES AND OFFICERS ASSUME NO RESPONSIBILITY OR LIABILITY FOR PERSONAL AND PROPERTY DAMAGE INCURRED DUE TO ACCIDENT, CARELESS HANDLING, ABUSE OR MISSUSE, IMPROPER CONNECTION, AND/OR INSTALLATION, IMPROPER ELECTRICAL CONTACT OR GROUNDING. OWNERSHIP AND/OR USE OF THE PSC POWERSTAR MINI TRIPLE PLAY CONSTITUTES AGREEMENT WITH THESE TERMS.

## Limited Warranty Certificate

Professional Sound Corporation warrants the PowerStar Mini Triple Play including all of its electronics, housing and other parts to be free from defective material and workmanship for a period of one year from the original date of purchase and agrees to repair or replace such defective parts or the whole product at its option, provided that the equipment is returned to Professional Sound Corporation. Shipping and insurance costs to and from Professional Sound Corporation must be prepaid by the owner. This warranty does not cover damage due to accident, careless handling, abuse or misuse, improper connection and/or installation, improper electrical contact, charging or grounding. This warranty will be null and void in the event of removal, alteration or tampering with the serial number, or by service or repair work not performed by Professional Sound Corporation. Proof of purchase date (copy of invoice or Warranty Certificate) must be furnished before warranty service will be performed. This warranty is in lieu of any other warranty, expressed or implied, including warranties without limitation, products being merchantable at the time of purchase or suitable for a particular purpose. This warranty does not extend to, or include consequential damage.

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# **CE**

## **DECLARATION OF CONFORMITY**

**EMC:** This product is in compliance with the Electromagnetic Compatibility Directive, 89/336/EEC as defined in EN 50081-1, EN55022 and EN 50082-1. IEC801-2, IEC801-3 and IEC801-4.

**LVD:** This product is in compliance with the requirements of the Low Voltage Directive, 73/23/EEC. 93/68/EEC as defined in EN60065, 1993 and/or EN60950/A1/A2/A3: 1995

**TRADE NAME:** PSC

**MODEL:** PowerStar Mini Triple Play

**RESPONSIBLE PARTY:** Professional Sound Corp.  
28085 Smyth Drive  
Valencia, CA 91355 USA

**CONTACT PERSON:** Ronald Meyer (661) 295-9395

**TYPE OF PRODUCT:** Low Voltage DC Power Distribution

**MANUFACTURER:** Professional Sound Corp.  
28085 Smyth Drive  
Valencia, CA 91355 USA

We hereby declare that the equipment bearing the trade name and model number listed above has been tested in accordance with the requirements contained in the above listed directives. All necessary steps have been taken and are in force to assure that production units manufactured will conform to Directive guidelines.

December 2014

Professional Sound Corporation