PROFESSIONAL SOUND CORPORATION

PSC Power Paddle III Antenna

- **Available in “Single Band” 470Mhz to 700Mhz**
- **Available in “Dual Band” 470Mhz to 618Mhz and also 940-960Mhz**
- **Available in “Wide Band” 470Mhz to 960Mhz**
- **Works as Passive or Active Antenna**
- **Excellent RF Performance**
- **Robust, Skeletal Design**
- **Switchable Gain via Easy to Use Rotary Knob**
- **Rubberized, Water Resistant Coating**
- **Ultra Low Noise RF Amplifier (0.6dB Noise)**
- **Ultra-High IP3 (Overload Point)**
- **Power Compatible with All Other Brands of Equipment**
- **Competitively priced, and Made in the U.S.A**

Introduction:

Thank you for purchasing the Professional Sound Corporation Power Paddle III Active Log Periodic Array Antenna. This new antenna is the result of our desire to provide you with a high quality, great performing active antenna at a reasonable price point. This new design features the ability to operate as a passive or active antenna. When in active mode, an Ultra-Low Noise Amplifier and band pass filter is switched into the circuit. This amplifier features an Ultra High IP3 Point for less overloading in the field. All of this advanced circuitry housed in a billet aluminum, black anodized housing attached to a robust fiberglass structure with an all-weather coating.

Safety Warnings:

The PSC Power Paddle III Antenna has been designed to be inherently safe to use. It operates from low voltage DC only. The design complies with all current safety, environmental and RF emission regulations. The safe use of this product is determined primarily by the user. Please read and understand this entire user's manual before using your new Power Paddle III Antenna. Proper cabling is a must in, on and around film and television production sets. Please make sure to route and tape down your RF cables on any film set so as to eliminate any possibility of tripping and/or equipment damage. Professional Sound Corp, its owners, officers and employees accept no responsibility for misuse of this antenna, whether intentional or not that may result in personal injury and/or property damage. In addition, PSC reserves the right to be held harmless for any liability caused by the use of this antenna with any other equipment.

Overview:

- Frequency Range of 470Mhz to 700Mhz…"Single Band" model
- Frequency Range of 470 to 618Mhz and also 940-960Mhz…."Dual Band" model
- Frequency Range of 470 to 960Mhz…."Wide Band"
- Operates as a Passive or Active Antenna…PSC Exclusive Feature
- Excellent RF Performance
- Robust, Skeletal Design
- Switchable Gain via Easy to Use Rotary Knob
- Rubberized, Water Resistant Coating
- Ultra Low Noise RF Amplifier (0.6dB Noise)
- Ultra-High IP3 (Overload Point)
- Power Compatible with All Other Brands of Equipment
- Competitively priced, and Made in the U.S.A

Construction:

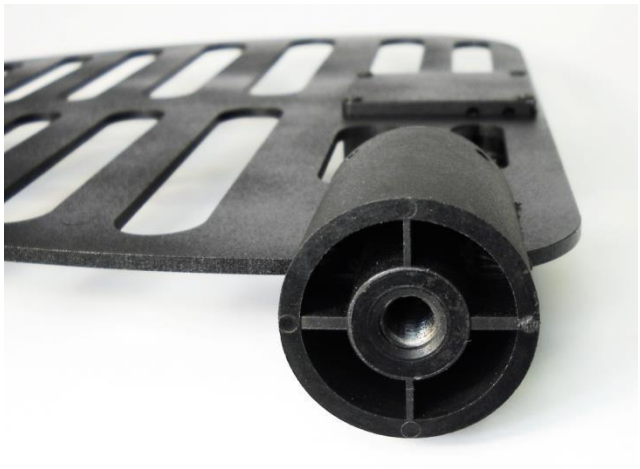
The PSC Power Paddle III's main array is built from 0.125" (3.2mm) fiberglass board. The electronics housing is precision CNC milled from aircraft grade aluminum billet using state of the art CNC equipment. The resulting box is then tumbled and black anodized for smooth edges and an overall nice look.

The finished fiberglass board is coated with a special water-resistant coating and should provide years of service in the field under extreme conditions.

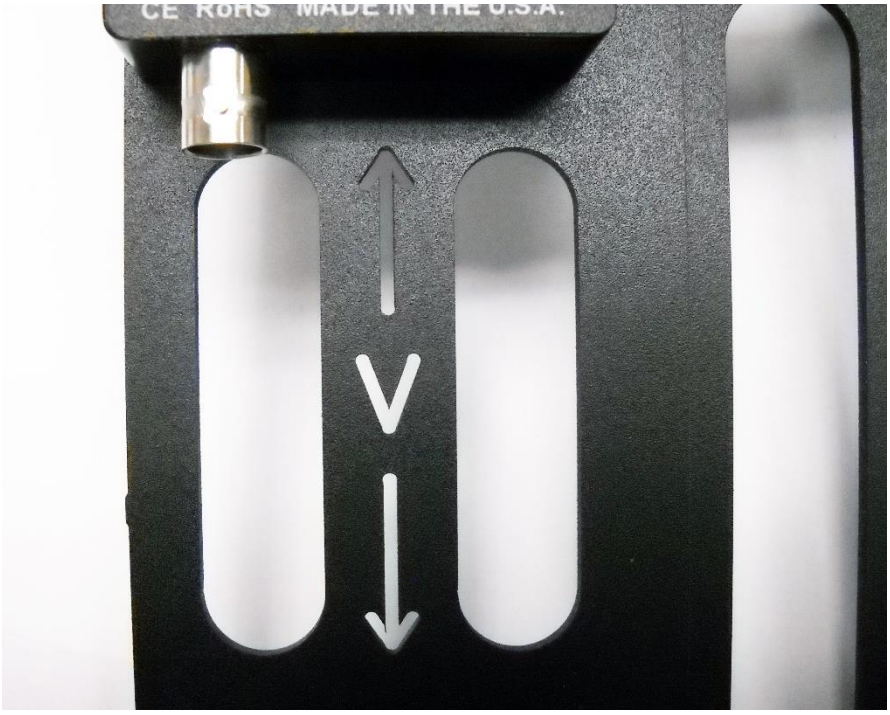
All silk-screen lettering on the PSC Power Paddle II antenna is applied to the back side of tough Lexan tm overlays. Printing the lettering and graphics on the back side of a clear overlay provides years of wear free use. Your fingers only rub against the sturdy surface of the clear Lexan rather than wearing the lettering off as happens with standard top surface silk-screening.

Antenna Placement:

Your new PSC power Paddle II Antenna should be mounted up and away from all of your other sound equipment. The antenna should be pointed toward the actor worn transmitters. Typically we advise that you place the antenna up at least 6 to 10 feet (2-3 meters) above your sound cart for best performance.



The antenna can be mounted using an industry standard 3/8"-16TPI threaded base.



The antenna is clearly marked to show the vertical (Up and Down) axis

Passive Antenna Use:

The PSC Power Paddle III Antenna can also be used passively. When you are in situations that do not require long cable runs, simply turn off the external antenna power on your PSC RF Multi SMA or other RF device that provides antenna powering. When no power is present, the antenna's internal RF relay will bypass the internal active electronics (RF Amplifier, RF Attenuator, etc.) and act just like any typical passive version of this antenna type.

Active Antenna Use and Powering:

You should connect the shortest and lowest RF loss cable possible between your antenna and your RF receiver or PSC RF Multi. You need to verify that your receiver or RF Multi has the antenna power switched "ON". You can verify this by noting the lit Blue LED on the Power Paddle III Antenna. This antenna can be powered from appropriate systems that output between 7 and 18Vdc. The standard for remotely powering antennas like these is 12Vdc. This antenna is compatible with all known manufacturers of RF equipment used in the film and TV industries.

The antenna does not have an ON-OFF switch. It is ON any time the power is supplied to the antenna. Power On is indicated by having one of the Blue LEDs lighted.

Antenna Gain Setting:

The Gain of the active antenna is primarily used to make up for loss through long RF cable runs. Please use the tables listed below for suggested gain settings based on RF cable type and RF Cable length. These are suggested settings based on RF loss through the various types of cable and cable lengths. You may have to experiment for best results on your particular location. Do not be tempted to turn the gain up higher than needed as this will not necessarily improve your RF performance. We recommend that you monitor your receiver's RF signal strength when setting the gain. Low indications of RF signal strength on the receiver may call for additional gain. High indications on the receiver may call for lower settings.

Gain settings are easily adjusted using the rotary switch. Gain setting is displayed by a lighted LED.

Typical Gain Settings at 470Mhz:

Length	**RG-58A/U**	**RG-8X**	**RG-8/U**
(meters)	**(Belden#8219)**	**(Belden #3253)**	**(IEWC#9096)**
10' (3m)	**+4dB**	**+4dB**	**N.R.**

25’ (8m)	**+6dB**	**+4dB**	**+4dB**
50’ (16m)	**N.R.**	**+6dB**	**+4dB**
100’ (32m)	**N.R.**	**+8dB**	**+6dB**

N.R. = Not Recommended

Typical Gain Settings at 650Mhz:

Length	**RG-58A/U**	**RG-8X**	**RG-8/U**
	(Belden#8219)	**(Belden #3253)**	**(IEWC#9096)**
10’ (3m)	**+6dB**	**+4dB**	**N.R.**
25’ (8m)	**+8dB**	**+6dB**	**+4dB**
50’ (16m)	**N.R.**	**+6dB**	**+4dB**
100’ (32m)	**N.R**	**+8dB**	**+6dB**

N.R. = Not Recommended

RoHS Certificate of Compliance

Professional Sound Corporation certifies that all products designated by Professional Sound Corporation as "PB-Free", "RoHS Compliant" or "Green" are compliant with the requirements of the European Union's Restriction on Use of Hazardous Substances ("RoHS") Directive, 2002/95/EC.

Professional Sound Corporation bases its material content knowledge on information provided by third parties, including parts manufacturers, distributors and vendors. Only RoHS certified parts and sub-assemblies are used in the assembly of Professional Sound Corporation products. Additionally Professional Sound Corporation has taken and continues to take commercially reasonable steps to insure that its parts suppliers, subcontractors and assembly houses are RoHS compliant.

Level A Banned Substances	Threshold, Homogeneous Level
Asbestos	Not intentionally added
Azo colorants	Not intentionally added
Cadmium	100 ppm, Not intentionally added
Hexavalent Chromium	1000 ppm, Not intentionally added
Lead	1000 ppm, Not intentionally added
Polybrominated Biphenyls (PBB's)	1000 ppm, Not intentionally added
Polybrominated Diphenyl Ethers (PBDE's)	1000 ppm, Not intentionally added
Polychlorinated Biphenys (PCB's)	Not intentionally added

Professional Sound Corporation certifies that all products made on or after June 30th, 2006 to be RoHS Compliant. All such products will be clearly marked with Professional Sound Corporation "compliant" label. This label assures the reseller and end user that the product is RoHS Compliant. An example of this label is shown below:

Compliant

Ronald Meyer, President, Date: November 2017

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:	**PSC Power Paddle III Antenna**
RESPONSIBLE PARTY:	**Professional Sound Corp.**
	28085 Smyth Drive
	Valencia, CA 91355 USA
CONTACT PERSON:	**Ronald Meyer**
	(661) 295-9395
TYPE OF PRODUCT:	**Active LPDA Receive Antenna**
MANUFACTURER:	**Professional Sound Corp.**
	28083 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.

April 2019 **Professional Sound Corporation.**

PSC Power Paddle Limited Warranty

Professional Sound Corporation warrants the Power Paddle III Antenna to be free of 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 or grounding. This warranty will be null and void in the event of removal, alteration or tampering with the serial number, or by breakage of the product case seal, 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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