



## General Balun Manual



## Dear Customer

Thank you and congratulations for purchasing this Array Solutions Premium Balun. We are proud to produce the finest balun on the market - and back it up with a Lifetime Warranty. These baluns are designed to have less loss and we use no fragile components in them to avoid damage from lightning. We build and test every one of them in our factory. None of them are built outside or overseas.

These baluns offer the lowest loss available to the amateur radio market since we do not use any lossy high permeability beads. All of these baluns use large low permeability ferrite cores. They will not saturate and generate heat. Unlike others on the market, we have taken the art of balun making to the highest of standards. See reviews of our baluns and Un-Uns on eHam.net. Please post your own review once you have installed your balun. I also am available for questions via e-mail or phone.

**We realize that we're not the lowest cost balun company and that you have many choices of less expensive products. But we are committed to the very best RF devices we can manufacture, and the best service you can get after you buy a product from us. I again thank you for your trust in Array Solutions.**

Sincerely,  
Jay Terleski

### Precision Baluns and Un-Un Transformers

Designed by professionals for the highest performance and reliability, lowest loss, and crafted from the finest materials and connectors available.

Model - MFG	Impedance	Type - Power	Frequency range
<b>BALUNS</b>			
<a href="#">W1JR-50-3</a> Array Solutions	1:1 50 Ω	Toroidal 5KW CW/ 10KW PEP	3.5-60 MHz
<a href="#">W1JR-50-1</a> Array Solutions	1:1 50 Ω	Toroidal 5KW CW/ 10KW PEP	1.5-35 MHz
<a href="#">W1JR-50-Q</a> Array Solutions	1:1 50 Ω	Toroidal 5KW CW / 10 KW PEP	3.5-60 MHz
W1JR-50-1DIN Array Solutions	1:1 50 Ω	Toroidal 10KW CW/ 20KW PEP	1.8-30 MHz
<a href="#">EB-1</a> Cal-AV Labs	1:1 50 Ω	Beaded 2KW CW / 4 KW PEP	1.8-30 MHz
<a href="#">EB-2</a> Cal-Av Labs	1:1 50 Ω	Beaded 2 KW CW/ 6 KW PEP	10 - 60 MHz
<a href="#">EB-3</a> Cal-AV Labs	1:1 50 Ω	Beaded 10 KW CW/ 20 KW PEP	14-60 MHz

<a href="#">AS-200-3</a> Array Solutions	4:1 200:50Ω	Toroidal 5KW CW/ 10KW PEP	3.5-60 MHz
<a href="#">AS-200-1</a> Array Solutions	4:1 200:50Ω	Toroidal 5kW CW/ 10KW PEP	1.8-30 MHz
<a href="#">AS-200-Tuner</a> Array Solutions	4:1 200:50Ω	Toroidal 10KW CW/ 20kW PEP	1.8-30 MHz
<a href="#">AS-25-3</a> Array Solutions	2:1 25:50Ω	Toroidal 3 KW CW/ 6KW PEP	3.5-60 MHz
<a href="#">AS-25-1</a> Array Solutions	2:1 25:50Ω	Toroidal 3KWCW/6K WPEP	1.8-30 MHz
<a href="#">AS-25-10K</a> Array Solutions	2:1 25:50Ω	Toroidal 10KWCW/20KW PEP	1.8-30 MHz
<a href="#">AS-75-1</a> Array Solutions	1.5 75:50Ω	Toroidal 5KWCW/10KW PEP	1.8-30 MHz
<a href="#">AS-50-L1</a> Array Solutions	50Ω Isolator	Toroidal 5KWCW/10KWPEP	1.8-30 MHz
<a href="#">BMP-4</a> Array Solutions		AS Series boom mounting plate	
<b>UN-UN Transformers</b>			
<a href="#">AS-75:50-1</a> Array Solutions	75:50Ω	Toroidal 5KW CW/ 10 KW PEP	1.8-60 MHz
<b>Other Baluns &amp; Xfmrs</b>			
<a href="#">Custom Baluns and Transformers</a>			

## Operation Instructions:

These baluns can be used with or without the balun mounting plate shown on the cover picture.

1. Note there are four condensation “weep holes” in the bottom 4 corners. If you wish to orient the balun in a different position, be sure to seal these holes with some silicon rubber adhesive, and then drill 2 to 4 new holes (1/16”) in the surface that will face down.
2. You may take the cover off anytime and examine the balun. No warranties are violated by doing so. We are proud of our work inside!
3. The balun bolts are #10-32 stainless steel in our standard models.
4. A dimpled red dot indicates “+” for phasing arrays, it is also the center conductor of the coax.
5. The four plastic tabs on the enclosure are strong enough to provide strain relief for dipoles or other wire antennas.
6. You may add a stainless steel eye bolt to the top to hoist the balun up on a tower standoff arm or tree. You will not violate the warranty; just make sure to seal it well and not to damage the coil windings.
7. Use your favorite sealing technique on the RF connector when you install the balun out of doors.

## Mounting the balun

The 4:1 Balun is a great replacement for the KT34XA and KT36XA antennas. It is rated at twice the power KLM or M2 baluns have available.

OptiBeam uses our balun as their standard offering for their antennas.

Here is a typical OptiBeam mount



The bracket for the balun is available from Array Solutions or from Optibeam in Europe. If you use a cable tie, clip it clean and place a few wraps of tape over it to keep UV off the cable tie.

Thank you for your purchase of our Balun.  
They come with a lifetime warranty see details on website.