

TO: ALL WOOD COUNTY EMERGENCY COMMUNICATIONS AMATEURS
ALL NON-WOOD COUNTY EMERGENCY COMMUNICATIONS AMATEURS
FROM: KEN HARRIS WA8LLM
WOOD COUNTY EMERGENCY COMMUNICATIONS INCORPORATED

WOOD COUNTY BULLETIN NR 24.04
SUBJECT: WHAT IS A BALUN?

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In your studies to get your Amateur Radio License, you have seen the word BALUN. BALUN isn't really a word, but a combination of words. The BAL part of the word stands for Balance. The UN part of the word stands for unbalanced.

A BALUN is used in an antenna system to convert an unbalanced transmission line, such as coax, to a balanced antenna, such as a dipole. Without the BALUN, some of the RF, or Radio Frequency, signal leaving the transmitter, going to the antenna returns back to the transmitter via the shield of the coax.

The BALUN, causes the RF coming from the transmitter to get distributed over both halves of the antenna, keeping most of the RF from returning to the transmitter. Even without the BALUN, the antenna will still radiate the signal, but not as good. Using a BALUN with antennas that need to be tuned, makes it easier. Some people say that a BALUN causes a loss of power between the coax and the antenna. The little bit of loss in the BALUN, is made up by not losing a whole lot of RF returning to the transmitter.

Ken Harris WA8LLM
WCEC
Wood County WV