



## Active CCTV Receiver Balun (500015) Frequently Asked Questions (FAQ)

1. **What is the main function of the LongReach Balun?** The main function is to provide extended distance via twisted pair cable between the CCTV camera and the DVR, multiplexer or video switcher.
2. **Will the LongReach help in situations where the cabling is marginal?** Yes. The LongReach will also work in installations where the cabling is marginal or where certain CCTV equipment is more sensitive to the video signal that it receives. For example with some digital video recorders (DVR), the tolerance on the input video signal level is more strict than with analog multiplexers, therefore shorter distances may result when cameras are connected using passive baluns. The LongReach restores the signal level to industry standard and allow longer distances to be achieved in these applications.
3. **How does the Automatic Image Adjustment feature work?** The LongReach is the first CCTV Balun that automatically adjusts picture sharpness and luminosity without the need for manual DIP switches or rotary potentiometers. The LongReach measures the incoming video signal and automatically takes into account other variables that may affect the signal such as temperature, cable attenuation. The LongReach restores the signal to industry standard RS-343 (RS-170) and provides the DVR or multiplexer with the optimum signal quality.
4. **Does an active transmitter balun have to be installed at the camera?** No. The LongReach does not require an active transmitter balun at the camera. The LongReach is connected at the receiver input and is designed to work with MuxLab's passive CCTV Balun (500000 or 500009) connected at the camera.
5. **Will the LongReach work with other vendors' passive baluns?** Yes. The LongReach works with third party passive CCTV baluns. However there may be an issue with signal polarity and performance may be affected.
6. **Will the LongReach work with other cable besides Cat 5?** Yes. The LongReach will work with lower grades of cable such as Cat 3 or Cat 2. It is estimated that for each unit decrease in cable grade, there is a 10% reduction in distance. For example Cat3 may yield 20% less distance than Cat5.
7. **Does the LongReach support PAL and SECAM?** Yes. The LongReach supports PAL and SECAM. The maximum distance specified for PAL or SECAM is 4,000 feet (1.2 km).
8. **What kind of power supply is needed?** The LongReach requires a *floating* 24VAC power supply, which is not supplied with the product.
9. **What kind of video signal does it provide at the output?** The LongReach provides a 1.1V p-p video signal in accordance with industry standard RS-343 (RS-170).
10. **Does the LongReach have voltage surge protection?** Yes, the LongReach has voltage surge protection with resettable fuse. If fuse is tripped, the power to the LongReach must be turned off for 2 to 3 minutes before powering on again.
11. **Is the LongReach video signal, polarity sensitive?** Yes. Both the LongReach and the passive CCTV Baluns have markings, which indicate signal polarity. The telecom terms "R" for Ring and "T" for Tip are used to denote the signal polarity. Wiring must be straight-through.
12. **Can more than one LongReach be powered by a single 24VAC power supply?** Yes, as long as each LongReach can be supplied with at least 110mA RMS at 24VAC.
13. **Does the LongReach have ground loop blocking?** Yes. The LongReach has ground loop blocking. If the ground loop differential exceeds 2.0Vp-p, the ground loop LED on the product lights up to warn that there may be a problem. The unit will continue to function anyway but the cause of the ground loop problem should be remedied.
14. **Can more than one LongReach be cascaded on the same line?** No. Two (2) of the 500015 may not be cascaded with each other on the same line. The 500015 must be installed at the DVR and a passive balun installed at the camera. However, for extended distance beyond 1.5km, the 500015 will work in conjunction with third party active transmitter baluns.

For more information, please contact MuxLab Customer Technical Support at 877-689-5228 (North America) or at 514-905-0588 or at [videoease@muxlab.com](mailto:videoease@muxlab.com) or visit <http://www.muxlab.com/>.