

OVERVIEW

The EZ-VU BL3725 video balun allows the replacement of coaxial cable with unshielded twisted pair (UTP) cable to transmit baseband video up to 2000 feet* with no additional power source.

It supports NTSC, PAL and SECAM formats and is ideal for use with CCTV equipment such as CCTV cameras, monitors, quads, switchers, multiplexers, VCRs and DVRs.

Easy to use, the BL3725 video balun requires few tools and can be connected to UTP in under a minute. Due to its exceptional interference rejection, the video signal

can share the same cable bundle as data, audio or other video signals. Supports up-the-coax control signals up to 1000 feet.

The EZ-VU BL3725 can be used with ordinary 24 gauge solid copper UTP cable. Best performance is obtained when using Category 5 or better rated cable.

IMPORTANT: If you are using existing telephone company wiring, it must be free of loading coils, metal oxide surge protectors and bridge taps. Punch-Down blocks are acceptable.

The cable run should not exceed the specified distances. In order to determine the length of an existing cable run, short the wires of a pair at one end and use an ohm meter to measure the loop resistance at the other end. For 24 gauge wire, loop resistance is typically 51 ohms per 1000 feet, while 26 gauge wire has a resistance of 82 ohms per 1000 feet.

The BL3725 video balun is used in pairs. *Because each video balun is polarity sensitive, the same polarity must be maintained from one end to the other end of the cable run. Each BL3725 is clearly marked on the bottom of each unit with a "+" or "-" polarity indicator.*

* **PLEASE NOTE:** Performance and distance may be affected by the quality of the cable used.



Warning! Some DVRs and Multiplexers can reduce the effective range over which a video signal can be transmitted. This is due to an inherent sensitivity to attenuated video signals within certain DVRs and Multiplexers. The video signal is attenuated by both coax and UTP cable over long distances. The usable distance can be reduced by 30% or more. Please consider this when calculating system requirements.

INSTALLATION INSTRUCTIONS



Step 1: Position the BL3725 with the UTP connector side facing you.

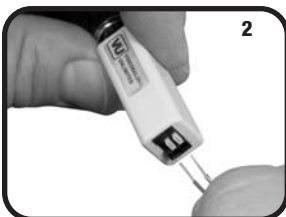
The BL3725 may also be pre-attached to a CCTV device prior to inserting the UTP wire.



Step 3: Hold exposed copper wires 1/2" from the end and insert firmly into the two small openings at the rear of the connector below the gray release tabs.

Push wires straight into openings about 1/4" until they are firmly in place inside the connector. Should the wires have to be removed from the connector, simply depress the tabs and pull the wires out.

Alternatively, these tabs can also be depressed before inserting the wire. This could be necessary when using stranded or thin wire. In this case simply depress tabs and insert wire about 1/4", then release tabs.



Step 2: Use a wire stripper to remove approx. 1/4" of wire insulation from the ends of the UTP wire.



Step 4: Insure that the wire pair remains twisted as close as possible to the connector in order to provide maximum noise and the interference rejection.

TROUBLESHOOTING

No video

- After insuring that the CCTV equipment is functioning properly, verify that UTP and BNC connections are secure, use a continuity tester to test for shorts or breaks in the cable.

Image is faded and out of focus.

- Use only unshielded twisted pair, preferably Cat 5 or better rated cable.
- Do not exceed specified distances. Note that the higher the category rating of cable, the greater the distance possible.
- Make sure that polarity is not reversed, observe polarity of each balun, Punch-Down block or splice.

- Verify that both wires of the twisted pair are properly connected and that there are no shorts along the wire path. Existing telephone company cable should not contain loading coils or MOV lightning protection devices.

Video does not sync and image is severely distorted

- Check for the presence of a ground loop (see below).
- Look for factors that can create crosstalk. Crosstalk is due to electromagnetic interference (EMI) and can occur when video signals are sent in opposite directions within the same jacketed cable. Try limiting this distance to under 1000 feet or using cable that is rated Cat 5 or better.

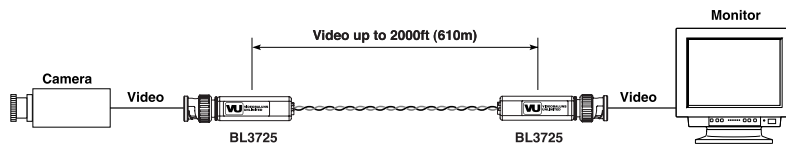
Video does not sync and the image is severely distorted with large white sections

- Try reversing the polarity of the twisted pair.

Horizontal bars traveling up or down the screen

- This may indicate the presence of a ground loop. When different power sources are used for camera, monitor or other equipment, differing ground potentials can cause ground loops. This causes voltage to flow between the CCTV equipment and the video baluns.
- One solution is to leave the camera ungrounded, as long as this meets the manufacturers' recommendations and local electrical code.
- If this is not possible, an isolation transformer can be installed between the video balun pairs.
- Ground loops can be prevented by using the same power source for all equipment. UTP provides a convenient way of running power from a central point when unused pairs remain. When using three pairs of 24 gauge wire to run 24 VAC, the voltage drop typically limits the run to 500 feet (*for safety never use UTP cable for high voltage applications*). For greater distances, a lower gauge cable is needed. Several cable manufacturers now offer a combined UTP and power cable for added convenience.

SPECIFICATIONS



| | | |
|--------------------|--|---|
| Video | Bandwidth Format | DC to 6 MHz NTSC, PAL, SECAM |
| Distance | Using Cat 5 cable | Up to 2000' |
| Wire | Unshielded Twisted Pair Gauge | Cat 2,3 5 or better 22 to 28 solid wire |
| Impedance | BNC UTP | 75 ohms (unbalanced) 100 ohms (balanced) |
| Environment | Temperature Humidity (non condensing) | -20 to +75 C 0 to 95% |
| Mechanical | Size (LxWxH in inches) Mounting | 2 11/32 x 1/2 x 5/8 Floating |
| Warranty | Limited Lifetime | |
| Regulatory | UL/CUL Listed Flammability | 94V-0 |

Ghost Images

- In the cable run, check for bridge taps , untwisted sections of wire, or split pairs . Bridge taps are unterminated sections of wire attached to the main cable loop. These should be removed because they can cause "ghosts" or faint versions of the original image to appear.
- Split pairs occur when one wire is taken from one pair and another wire taken from another pair. This can severely degrade the performance of the cable. Use paired wire only.

LIMITED LIFETIME WARRANTY POLICY

VIDEOBALUNS UNLIMITED warrants their products are free from defects in material and workmanship and that they conform to VIDEOBALUNS UNLIMITED applicable published specifications for the life of the product.

There shall be no other warranties, express, statutory or otherwise, including any implied warranty of merchantability of fitness, or any other obligation on the part of VIDEOBALUNS UNLIMITED with respect to any of its products.

In the event that any product is damaged or altered or modified in any way whatsoever without the expressed

prior written consent of VIDEOBALUNS UNLIMITED, any warranty for those products will immediately cease and VIDEOBALUNS UNLIMITED will have no further liability as it pertains to those products. VIDEOBALUNS UNLIMITED assumes no responsibility for damages or penalties incurred resulting from the use of their products in a manner or location other than for which they are intended.

VIDEOBALUNS UNLIMITED's liability under any warranty shall be discharged by their replacing or repairing of any part or parts not conforming to the applicable warranty under normal and proper use. VIDEOBALUNS

UNLIMITED's sole financial liability with respect to any product shall not exceed a refund of the price paid to VIDEOBALUNS UNLIMITED for that product, and in no event shall VIDEOBALUNS UNLIMITED have any liability for any incidental, consequential, special or indirect damages.

Some states do not allow the exclusion or limitation of special, incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.

For more information, please contact:

info@videobaluns.com
Tel: (508) 620-1002