

# **VECA UTP**

## **Video Enhancer Compensator Amplifier**

### **Applications and Operation Manual**



The VECA UTP is an inline device to pre-compensate for video degradation due to long cables for coaxial cables and designed for the head end or camera end installation. It also includes the passive filter for connection directly to UTP CAT3, 4, 5, or 6 cabling. There are two controls on the VECA UTP, one for Enhancing and the other for Gain.

## **Installation**

Connect the VECA UTP inline-with the video signal you wish to enhance. Adjust the gain so the over all video level at the monitoring end is returned to 1 V P-P. Then turn on the Enhance switch and adjust clockwise until the picture is improved to your satisfaction.

## **Gain**

This control amplifies or attenuates the overall gain or video level of the signal. This can recover attenuated signals due to long cable runs up to X2 video gain. It can also attenuate the video gain if the video signal is too high or you turn up enhance to maximum. Internally you can remove the jumper that terminates the video input with 75 ohm to increase the gain if using cameras with 2VP-P video output un-terminated. The video output is also terminated for stability in coaxial wiring but this jumper can be removed for UTP wiring if the wire impedance is low.

## **Enhance**

This control improves the video picture to get high quality by rectifying the picture contour. Move the control clockwise to increase the high frequency component of the video signal to enhance the picture. Turning the control all the way counter clockwise will attenuate the high frequency portion of the video for a soft look.

## **Enhance On / Off**

If this switch is in the "Off" position the enhancement circuitry is turned off and the adjustment control makes no difference. In this position the user can adjust the proper overall video level. In the "On" position the enhancement is enabled and one can adjust for optimum enhancement.

## **Default Factory Adjustment**

The factory presets the Gain at unity or X1 which is no amplification or attenuation. The Enhancement adjustment is nominal and unity or X1 enhancement. The Enhance switch is in the "Off" position. The video input jumper is set on for terminating with 75 ohms and the video output termination is set on with the jumper.

## **Termination Jumper Settings**

### **JP1 – Input Termination Jumper**

Removing this jumper makes the VECA UTP unterminated for the video input source. In some cameras this will increase the video level from 1 V P-P to 2 V P-P if no other looping termination is present.

However note that the Video Enhancer Circuitry of the VECA UTP only works with a video input level of 1 – 1.5 V P-P. Any higher video level will cause clipping or distortion of the video signal which is viewed as a "washing out" of the color information. Therefore for video levels higher than 1.5 V P-P the Enhance switch should be in the "Off" position.

With the Enhance switch in the "Off" position the internal video amplifier will allow input video levels of up to 2.5 V P-P. Therefore to get additional amplification in the video level remove JP1. The Gain control will then amplify the video level up to 4 V P-P. In some cases of lossy lines this will regain the video level at the monitor end.

### **JP2 – Output Termination Jumper**

For most installation this jumper is to remain on to preserve video signal stabilization. If the video output load impedance is less than 500 ohms this jumper may be removed.

## **Power**

The VECA UTP uses a standard 2.1mm x 5.5 mm DC Coax Plug for power. 12VDC @ 100ma is required. Also wired in parallel to this plug is a two terminal push clamp connector for direct connection to bare wires. This also allows a power in and out configuration if required.

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