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# **INSTALL INSTRUCTIONS**

# **DTK-iBNCHD**

This Surge Protective Device (SPD) is a high performance solution, designed to provide protection for HD-SDI coaxial runs. Maximum protection will only be achieved if the SPD is properly installed. Please read and follow the installation instructions carefully.

**NOTICE:** This SPD should be installed by a qualified electrician in accordance with National and Local Electrical Codes and the following instructions.

## **APPLICATION**

Surge suppression for HDCCTV applications using BNC connections.

## **INSTRUCTIONS:**

#### Cautions:

Measure all voltages to insure applied voltage does not exceed the voltage rating of the unit. Improper installation voids the warranty.

Connect your HDCCTV camera and DVR system up prior to installing this surge protective device to establish a functional perforance baseline.

This unit is polarity sensitive and must be connected in series with the equipment to be protected.

## For Camera Side Protection:

- 1. Connect the BNC camera connection to the DTK-iBNCHD's "INPUT/CAMERA" side. This is also referred to as the "Unprotected Cable" side.
- 2. Connect a 3' factory terminated BNC to BNC patch cord from the DTK-iBNCHD's OUTPUT/EQUIPMENT side to the camera.

This is also referred to as the "Protected Equipment" side.

#### For Head End Protection:

- 1. Connect the incoming BNC video input DVR connection to the DTK-iBNCHD's INPUT/CAMERA side. This is also referred to as the "Unprotected Cable" side
- Connect a 3' factory terminated BNC to BNC patch cord from the DTK-iBNCHD's OUTPUT/EQUIPMENT side to the DVR's video input.
   This is also referred to as the "Protected Equipment" side.

The DTK-iBNCHD depends on the RG59 cable shield being grounded along the cable run, either at the camera/pole or the head end equipment/DVR chassis.

Only have one common ground per system to eliminate the possibility of a differential in ground potentials. **Ground Resistance Rule**: Max ground resistance is 25 ohms, 5 ohms or less is optimum.

This cannot be an assumed value and must be measured to assure proper grounding.



#### **Transmission Distance Expectations**

When using RG59 coax cable with a center conductor size of 20AWG or larger (ex. 20AWG, 18AWG), allow for a maximum transmission distance between camera and head end of 140 meters, this includes patch cords.

When using RG59 coax cable where the center conductor size is smaller than 20AWG

(ex. 23AWG, 24AWG, 25AWG), allow for a maximum transmission distance between camera and head end of 85 meters, this includes patch cords.

We recommend for best protection of both the camera and head end equipment, install a DTK-iBNCHD unit at both ends.

Use 3' BNC to BNC factory terminated patch cords for all connections between the DTK-iBNCHD and the protected equipment.

**Note:** If after install there is a loss of signal, you can use a "repeater" to extend a camera's HD-SDI output signal. Install this device in front of the DTK-iBNCHD protecting the DVR at the head end.

DITEK Technical Support Available 24/7 1-888-472-6100 www.ditekcorp.com

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