Video Balun-Combiners™
VB43ATF

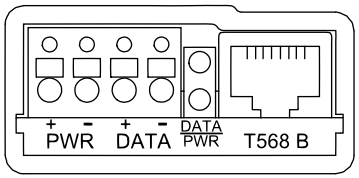
DOC #: 680430101
Rev 022006

Reduce risk of fire or electrical shock do not expose this product to rain or moisture.

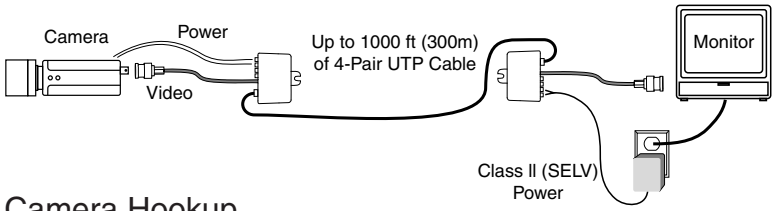
INSTALLATION

The VB43 allows you to combine video data and power on a single 4 pair network cable. The following instructions illustrate the hookup of two VB43 units.

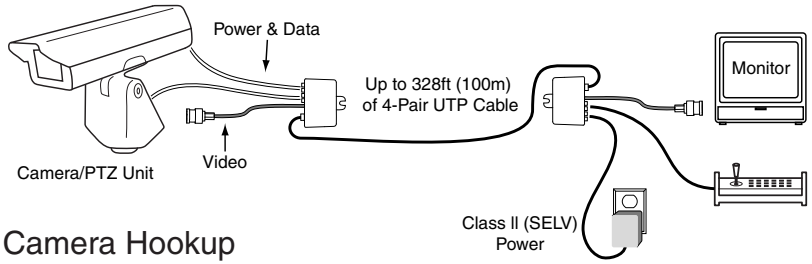
1) Install and terminate a standard network cable run. The ends should be wired in a T568B configuration.
2) Connect the VB43 at the receiving end of the cable. Use the BNC connection of the unit to feed your monitor, multiplexer or DVR unit.
3) Connect a Class II (SELV) power supply to the power terminals of the VB43 unit at the receiving end. If you are using 12 VDC power note the polarity of the connection. You may also connect a two wire data signal such as RS422 or RS485 to the Data terminals. The VB43 unit has LED indicators for both Power and Data. The Data LED will light when data is being sent. The power LED will light Amber for AC, Green for DC and RED if DC is reversed.
4) At the camera end connect the VB43 unit to the network connection and verify proper LED indicators. Power is Green for DC, AMBER for AC and RED if DC power is reversed. Data will flash when data is present. After verifying proper indicators disconnect the network cable and make the final connections to the camera.
5) Connect the BNC of the VB43ATF to the video output of a camera. Connect the Data terminals if needed and connect the power terminals to the camera, note the polarity if DC is used. Reconnect the network cable.



VB43ATF Front



Fixed Camera Hookup



PTZ Camera Hookup

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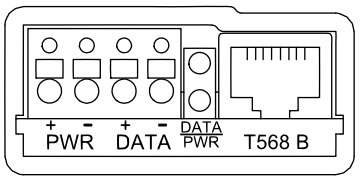
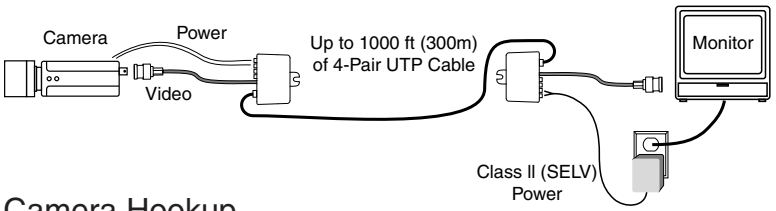


VB43ATF Front



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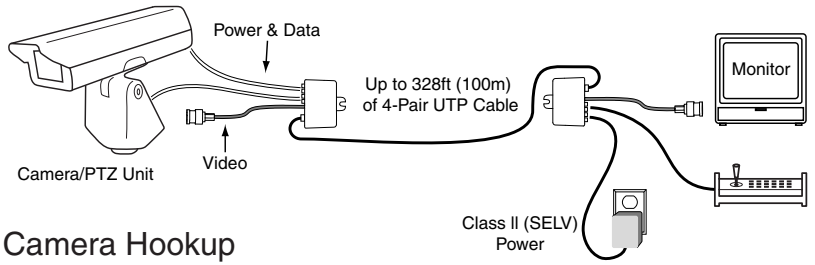


PTZ Camera Hookup

TROUBLESHOOTING

Many times it is not possible to know where the telephone cables are routed, so the actual distance of the cable may not be known. An easy way to determine the actual length of the cable is with an ohm meter. Short the wire together at one end and measure the resistance at the other end. (See loop resistance chart)

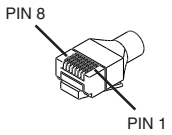
Loop Resistance

AWG	RESISTANCE (per 1,000 ft)
22	32
24	51
26	82

Problem	Fix/Cause
No video at receiver.	Check camera video and coax connections. Check the twisted pair for opens and shorts. Check that power at the camera meets requirements Check that camera has power
Ghosts image to the right, horizontal smearing.	Check for bridge taps or "T" taps on the twisted pair and remove them

Required Wiring: T568B

PIN	Color Code	Signal
1	WHT/ORG	VIDEO +
2	ORG	VIDEO -
3	WHT/GRN	Power COM
4	BLU	RS422 -
5	WHT/BLU	RS422 +
6	GRN	Power LIVE
7	WHT/BRN	Power COM
8	BRN	Power LIVE



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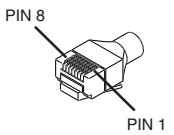

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