

## Kit's PREMIUM of Power Transmission (36@12Vdc) and Video (HD-TVi)



KIT-TT4PVTURBOX



KIT-TT8PVTURBOX



KIT-TT16PVTURBOX

### Features

- ▶ Real-time transmission over UTP cat5e/6
- ▶ Compatible with all HD-TVi/CVI/AHD/CVBS analog cameras
- ▶ Provides camera power while receiving video signal
- ▶ Please refer to "Video Transmission Distance Chart" Part to find out distance of 720P/960P/1080P/3MP/4MP/5MP/4K cameras
- ▶ Female BNC connector and RJ45 Jack
- ▶ Full Channel Support OSD (On-Screen Display) with high quality image
- ▶ Centralized power supply, reducing the use of engineering cables
- ▶ Exceptional interference rejection
- ▶ Built-in solid state TVS for surge protection & ground loop isolation

- ▶ Wave Filter Design, Anti-Static Design
- ▶ Lightning protection design Grade:
- ▶ Black galvanized housing
- ▶ Rack, wall mountable and desk installation with 4 rubber feet

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### Installation and Operation

Before permanently securing the unit for final installation of cabling behind walls or ceilings, test for proper operation of the unit and the cables in your system.

**Camera End:** Connect transmitter to the camera's video and DC power connector. Insert UTP cat5e/6 into RJ 45 jack of transmitter.

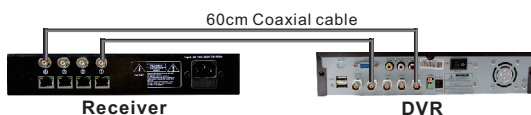


**Transmitter:** convert 36VDC to regulated 12VDC at camera

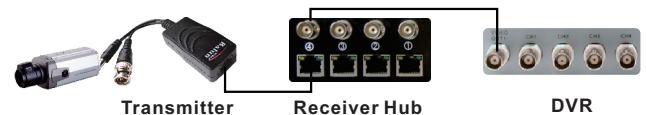
**DVR End:** There're RJ45 jack labeled "UTP In" and Female BNC connectors labeled "BNC out" on the receiver hubs.



Insert one end of coaxial patch cord into Female BNC connectors of receiver hub and the other end into Female BNC connectors of DVR.



Terminate the incoming UTP cat5e/6 cable from transmitter into your RJ45 jack of 4/8/16 Video & Power Receiver hubs.



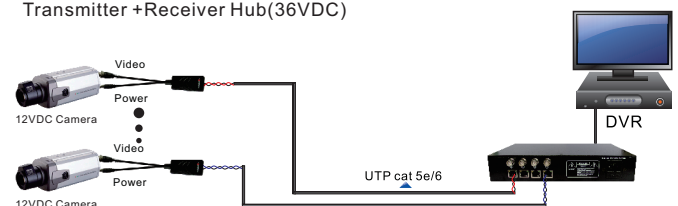
Switch on the Video & Power Receiver Hub using the on/off switch.

### Quick Setup Guide

- Step 1: Begin with all input/output devices turned off with power cables removed.
- Step 2: Connect video source and UTP cat5e/6 cabling to transmitter
- Step 3: Connect video display and/or DVR to "BNC output" of Receiver Hub
- Step 4: Terminate the incoming UTP cat5e/6 cable into your RJ45 jack "UTP In" (See RJ 45 jack Pin Assignment)
- Step 5: Power on all input/output devices

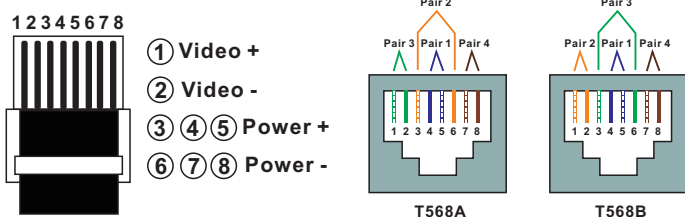
### Application Example

Transmitter + Receiver Hub (36VDC)



## Wiring Scheme

- Notes:** 1. You can use either T568A or T568B cables,  
Make sure that both transmitter and receiver ends use the same wiring.  
2. The maximum cable length is 1000ft(305m). For voltage drops over long distances, refer to the table further in this manual.



	Video+	Video-	Power-			Power-		
	1	2	3	4	5	6	7	8
T568A:	White Green	Green	White Orange	Blue	White Blue	Orange	White Brown	Brown
T568B:	White Orange	Orange	White Green	Blue	White Blue	Green	White Brown	Brown



Transmitter end



Receiver end

- ① Yellow LED ON: Overcurrent  
② Green LED ON: Power ON

## Video & Power Distance Chart

Video Distance Chart:

Camera Type	HD-TVI	HD-CVI	HD-AHD
720P camera	250m(820ft)	440m(1443ft)	320m(1049ft)
960P camera	/	/	320m(1049ft)
1080P camera	250m(820ft)	250m(820ft)	250m(820ft)
3MP camera	250m(820ft)	/	250m(820ft)
4MP camera	180m(590ft)	230m(754ft)	200m(656ft)
5MP camera	180m(590ft)	/	200m(656ft)
4K camera	200m(656ft)	200m(656ft)	/
CVBS analog	400m(1312ft)		

- Notes:** 1. Wire should be category 5e rated Unshielded Twisted-Pair (UTP) cable.  
2. CCTV camera's input voltage is 12VDC, because of  $\pm 10\%$  voltage fluctuation, so we test it in the minimum voltage 10.8VDC.  
3. The distance between the camera and the remote video device must not exceed 1000ft(305m) for color.  
4. Actual distance will depend on the camera's inrush and operating current, minimum operating voltage, and the wire's environmental temperature.

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## Mechanical/Technical Specifications

Product Name		36VDC Power Supply HD Video Receiver Hub		
Model		KIT-TT4PVTURBO	KIT-TT8PVTURBO	KIT-TT16PVTURBO
Applied Devices		CCTV cameras, monitors, DVR, switchers, IP encoders, and other CCTV equipment		
Video	Video Format	HD-TVI/CVI/AHD/CVBS		
	Operating Frequency	DC to 42MHz		
	Max Distance	CVI 720P: 400m(1312ft)	TVI 720P: 190m(623ft)	AHD 720P: 300m(984ft)
		CVI 1080P: 220m(721ft)	TVI 1080P: 190m(623ft)	AHD 960P: 240m(787ft)
			AHD 1080P: 220m(721ft)	
	Common-mode/Differential-mode	15KHz to 42MHz 60 dB typ		
Wire Type	Impedanc	Coax: Male BNC 75ohms		
		UTP: RJ45 100ohms		
	Attenuation	0.5 dB typ		
	Network Wiring	One four-pair UTP Cat5e or better per channel		
	Category Type	UTP cat 5e or better		
Power	Impedance	100 $\pm$ 20 ohms		
	DC Loop Resistance	52 ohms per 1,000ft (18 ohms per 100m)		
	Differential Capacitance	19 pF/ft max (62 pF/m max)		
	Power Input	110VAC/220VAC, 50/60Hz		
	Power transmission	36VDC, up to 1000ft/305m via UTP cat5e/6		
Connector	Power consumption	150W	150W	300W
	Output power per channel	18.5W(max)		
	Video input	RJ45 Jack		
Protection	Video output	Female BNC connector		
	Surge Protection	Built-in Transient Voltage Suppressor(TVS)		
Mechanical	Antistatic	YES		
	Dimensions(L*W*H)	300x261.2x67mm	300x261.2x67mm	430x261.2x67mm
	Housing	Black galvanized		
	Body Color	Black		
Environmental	Net Weight	4.7 Kg	6.85 Kg	12.5 Kg
	Operating Temperature	-25° ~ 75° C		
	Relative Humidity	0~95% (non-condensing)		
	Storage Temperature	-40° ~ 150° C		

## Warning !

### Important Product Warnings:

- Always test for proper operation of the unit before permanently securing to final location.
- Connect all cables before providing power to the unit.

### Safety Instructions

Please be sure to follow these instructions for safe operation of your unit.

- Read these instructions.
- Keep these instructions.
- Heed all warnings.
- Follow all instructions.
- Keep this apparatus away from children and unauthorized users.
- Do not use this apparatus near water.
- Clean only with dry cloth.
- Indoor use only. To reduce the risk of electrical shock, keep this apparatus away from rain, moisture, splashing and dripping liquids. Never put objects filled with liquid on top of or close to the apparatus.
- Do not block any ventilation openings.
- Install in accordance with the manufacturer's instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus(including amplifiers) that produce heat.
- Always disconnect mains power when this apparatus not in use or when servicing or maintenance activities are performed. Handle the power cord by the plug only.
- Only use attachments/accessories specified by the manufacturer.
- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

### Warranty

- All manufactured products are built to high manufacturing standards and provide one year warranty.
- To reduce the risk of electrical shock, DO NOT disassemble or open the cover. No user serviceable parts inside. Refer servicing to qualified service personnel.
- All modifications of the apparatus are forbidden for safety reasons. Damage caused by user modifications to the apparatus is not covered by the warranty.
- Damaged by disregard of certain guidelines in this manual is not covered by the warranty.