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› TNP RJ45 Ethernet Cable Combiner/Splitter Kit Instruction Manual

TNP Products ADAP_RJ45_SPLT_RS102

TNP RJ45 Ethernet Cable Combiner/Splitter Kit Instruction Manual

Model: ADAP_RJ45_SPLT_RS102

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1. INTRODUCTION

The TNP RJ45 Ethernet Cable Combiner/Splitter Kit is designed to simplify network installations by allowing two devices to share a single Ethernet cable. This kit is particularly useful for surveillance systems (CCTV POE NVR) and other network setups where running multiple cables is impractical. It provides a cost-effective and efficient solution for extending network connectivity.



Image: The TNP RJ45 Ethernet Cable Combiner/Splitter Kit, featuring two blue splitter units with RJ45 connectors.

RJ45 ETHERNET CABLE COMBINER/SPLITTER KIT

Easily integrate them into CCTV POE NVR systems. Simplifies installation by allowing one Ethernet cable to run for 2 devices

- ✓ Cost-Effective
- ✓ Reliable Performance
- ✓ Simple plug-and-play setup

LEARN MORE



Image: Overview of the RJ45 Ethernet Cable Combiner/Splitter Kit, highlighting its use in CCTV POE NVR systems for simplified installation.

2. PRODUCT FEATURES

This kit offers a range of features designed for reliable and efficient network extension:

- **Versatile Compatibility:** Compatible with HDCVI, AHD & TVI signals, transmitting up to 1080P. Applicable for access points, routers, IP cameras, modems, switches, and more.
- **Extended Transmission Range:** Supports maximum transmission distances of HD CVI (720p): 300m (1080p): 200m; HD AHD (720p): 200m; HDTVI (720p): 300m (1080p): 200m.
- **Advanced Safety:** Built-in surge and transient overvoltage protection ensure safety during operation, protecting connected devices.
- **Simplified Connectivity:** Allows connecting two male RJ45 devices to a single switch port, extending connectivity to cameras, Wi-Fi devices, or phones remotely.
- **PoE Compatibility:** Compatible with any 10/100 switch with or without Power over Ethernet (PoE). Also suitable for

devices that do not support PoE.

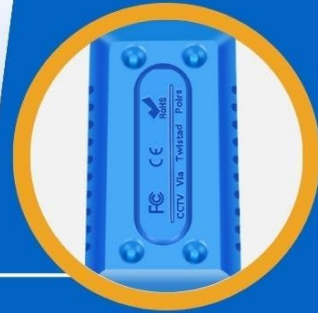
- **Durable Construction:** Features ABS Housing for high-quality construction and pure copper gold-plated needles in CAT6 Ethernet cables for stable transmission.
- **Space-Saving Design:** Compact design helps in reducing cable clutter.
- **Lightning Anti-Interference:** Effectively improves lightning protection and provides excellent circuit isolation protection.



Image: Key product features including space-saving design, stable transmission, ease of installation, and lightning anti-interference.

ADVANCED SAFETY FEATURES

Our ethernet adapter cable is equipped with built-in surge and transient overvoltage protection



ABS Housing

High-quality Construction



CAT6 Ethernet Cable

Pure copper gold plated needle ensure stable transmission



RJ45 POE Plug

Modular RJ45 port provide a longer service life

Image: Details on advanced safety features, including durable ABS housing, CAT6 Ethernet cable with pure copper gold-plated needles, and robust RJ45 POE plugs.



Extended Transmission Range

This ethernet splitter high speed cable offers up to 300m transmission for 720p and 200m for 1080p in HD CVI, AHD, and HDTVI signals, maximizing connectivity across various setups.

Image: Illustration of the extended transmission range, demonstrating connectivity over distances up to 300m for 720p and 200m for 1080p signals.

3. COMPATIBILITY

The TNP RJ45 Ethernet Cable Combiner/Splitter Kit is designed for broad compatibility with various network devices and signal types:

- **Signal Types:** HDCVI, AHD, HDTVI.
- **Devices:** Internet Protocol Cameras (IP Cameras), POE Switches, NVRs (Network Video Recorders), Routers, Monitors, and other standard Ethernet-enabled devices.
- **Network Speed:** Supports 10/100 Mbps Ethernet networks.

Versatile Compatibility

Ensuring a broad application spectrum

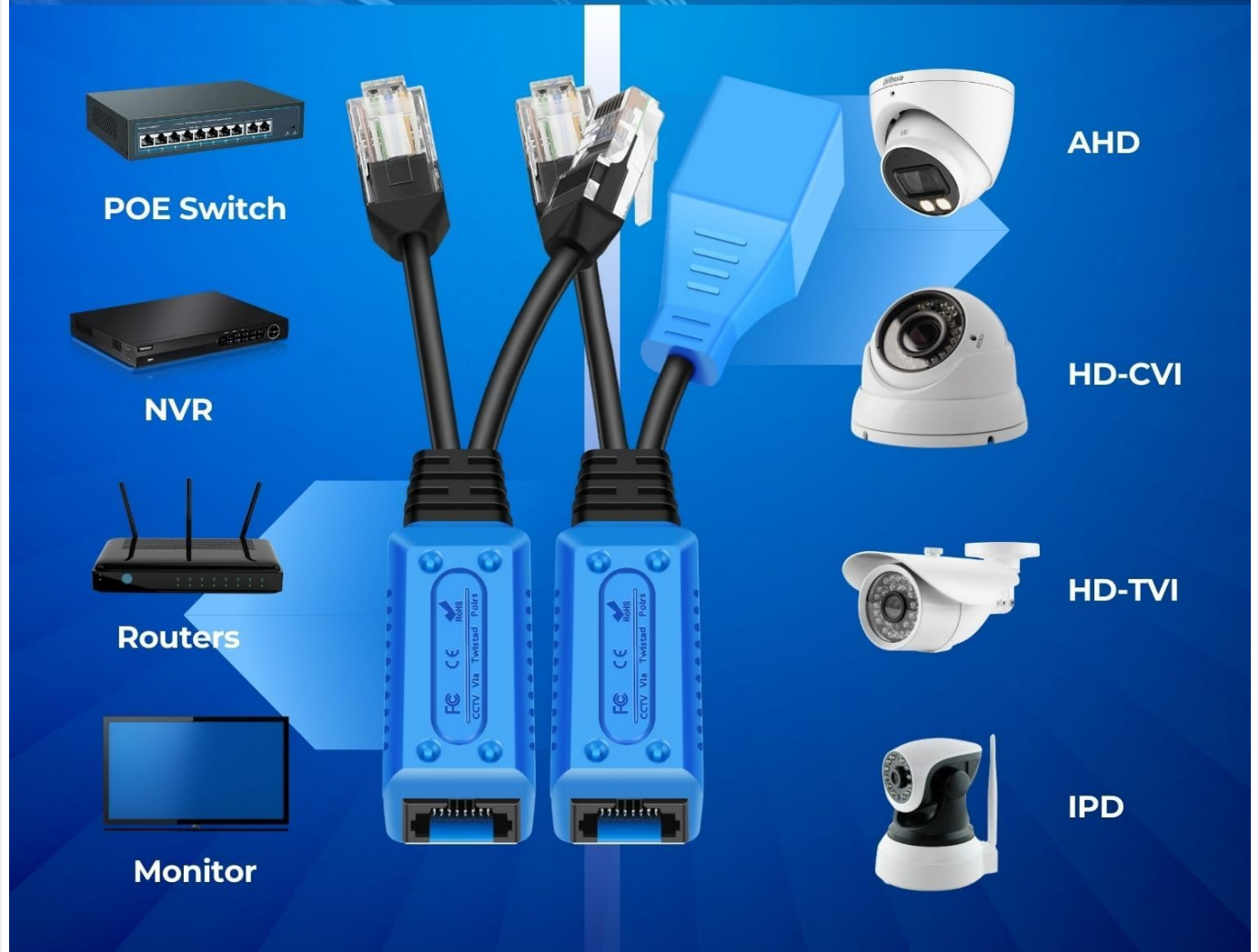


Image: Visual representation of the splitter's versatile compatibility with various devices including switches, NVRs, routers, monitors, and different types of surveillance cameras (AHD, HD-CVI, HD-TVI, IPD).

4. SETUP AND INSTALLATION

The kit provides two primary application scenarios for easy connection setup:

Application A: Two Devices Share a Single Cat5e/6 Cable

This setup is ideal for connecting two standard Ethernet devices (e.g., a computer and a printer) to a single router port using one long Cat5e/6 cable.

1. Connect one male RJ45 end of the first splitter unit to a LAN port on your router.
2. Connect the single female RJ45 port of the first splitter unit to one end of your Cat5e/6 cable.
3. At the remote end, connect the other end of the Cat5e/6 cable to the single female RJ45 port of the second splitter unit.
4. Connect your first device (e.g., Computer) to one of the male RJ45 ends of the second splitter unit.

5. Connect your second device (e.g., Printer) to the other male RJ45 end of the second splitter unit.
6. Ensure all connections are secure. The splitter uses all 4 pairs of wires for data transmission.

Application B: 2-in-1 (Two Cameras Over One Cable) Cat5e/6 POE Power/Data Transmission

This setup is specifically designed for surveillance systems, allowing two IP cameras (with or without PoE) to transmit data and power (if PoE) over a single Cat5e/6 cable from a PoE switch or NVR.

1. Connect the two male RJ45 ends of the first splitter unit to two separate PoE ports on your PoE switch or NVR.
2. Connect the single female RJ45 port of the first splitter unit to one end of your Cat5e/6 cable.
3. At the remote camera location, connect the other end of the Cat5e/6 cable to the single female RJ45 port of the second splitter unit.
4. Connect your first IP camera to one of the male RJ45 ends of the second splitter unit.
5. Connect your second IP camera to the other male RJ45 end of the second splitter unit.
6. If cameras are not PoE, ensure they have separate power adapters connected. The splitter facilitates data and power transmission over the single cable.

Easy Connection Setup

Application A: 2 Devices Share Single Cat5e/6 Cable



Router



All 4 pairs are wired



Computers



Printer

Application B: 2 -in-1 (2 Cameras Over 1 Cable) Cat5e/6 POE Power/Data Transmission



PoE Switch or
POE Projector



All 4 pairs are wired



Image: Detailed diagram illustrating both Application A (two devices sharing one cable) and Application B (two cameras with PoE power/data over one cable) setup configurations.

5. OPERATION

Once properly connected, the TNP RJ45 Ethernet Cable Combiner/Splitter Kit operates by effectively splitting or combining Ethernet signals over a single cable run. It maintains a stable network connection without compromising speed or signal quality for 10/100 Mbps networks.

- **Data Transmission:** The adapter facilitates data transfer for two separate devices over one physical Ethernet cable.
- **PoE Functionality:** In PoE setups, it allows power and data to be transmitted to two PoE-enabled devices (e.g., IP cameras) using a single cable from a PoE switch.
- **Signal Integrity:** Designed to maintain signal integrity over extended distances, as detailed in the specifications.

Reliable Performance

Maintains a stable network connection without compromising speed or signal quality, ensuring a seamless user experience.

10/100 MBPS



Image: Depiction of reliable performance, illustrating 10/100 Mbps data transfer and stable network connection, suitable for surveillance monitoring.



Image: Various applicable scenarios for the splitter, including street, security, home, and airport environments, highlighting its versatility.

6. CARE AND MAINTENANCE

To ensure the longevity and optimal performance of your TNP RJ45 Ethernet Cable Combiner/Splitter Kit, follow these simple care and maintenance guidelines:

- **Keep Dry:** Avoid exposing the units to moisture or extreme humidity.
- **Clean Gently:** If cleaning is necessary, use a soft, dry cloth. Do not use liquid cleaners or solvents.
- **Handle with Care:** Avoid bending or twisting the cables excessively, especially near the connectors, to prevent internal wire damage.
- **Secure Connections:** Ensure all RJ45 connectors are fully seated and latched into their respective ports to prevent intermittent connections.
- **Environmental Protection:** While the units have surge protection, it is advisable to use them in environments with stable power supply and away from direct lightning strikes.

7. TROUBLESHOOTING

If you encounter issues with your TNP RJ45 Ethernet Cable Combiner/Splitter Kit, refer to the following common troubleshooting steps:

Problem	Possible Cause	Solution
No network connection on one or both devices.	Loose cable connection, incorrect wiring, faulty cable, or incompatible device settings.	• Ensure all RJ45 connectors are fully inserted and latched. • Verify that the Cat5e/6 cable connecting the two splitter units is not damaged. • Check network settings on connected devices (IP configuration, drivers). • Test devices directly with a single Ethernet cable to rule out device issues.
Slow network speed or intermittent connection.	Cable length exceeding maximum transmission distance, poor quality cable, or network congestion.	• Confirm cable length is within specified limits (e.g., 200m for 1080p, 300m for 720p). • Use a high-quality Cat5e or Cat6 cable. • Reduce network traffic if possible. • Ensure the connected switch/router ports are functioning correctly.
PoE devices not receiving power.	Non-PoE switch/NVR, faulty PoE port, or device not PoE-compatible.	• Ensure you are using a PoE-enabled switch or NVR. • Verify that the PoE ports on your switch/NVR are active and supplying power. • Confirm that your IP cameras or other devices are PoE-compatible. • If not PoE-compatible, provide external power to the devices.

8. TECHNICAL SPECIFICATIONS

Attribute	Detail
Model Number	ADAP_RJ45_SPLT_RS102
Brand	TNP Products
Connector Type	RJ45
Cable Type	Ethernet (Cat5e, Cat6 compatible)
Hardware Interface	Ethernet
Compatible Devices	Internet Protocol Camera, POE Switches, NVRs, Routers, Modems, Access Points
Data Transfer Rate	0.1 Gigabits Per Second (10/100 Mbps)

Attribute	Detail
Number of Ports	3 (1 female, 2 male per unit)
Max Transmission Distance (HD CVI)	720p: 300m; 1080p: 200m
Max Transmission Distance (HD AHD)	720p: 200m
Max Transmission Distance (HDTVI)	720p: 300m; 1080p: 200m
Special Features	High Speed, Built-in surge and transient overvoltage protection
Product Dimensions	17.78 x 10.16 x 2.54 cm; 60 g
Batteries Required	No

9. CUSTOMER SUPPORT

For any questions, technical assistance, or warranty inquiries regarding your TNP RJ45 Ethernet Cable Combiner/Splitter Kit, please contact TNP Products customer support.

Please refer to the product packaging or the official TNP Products website for the most current contact information.

Online Resources: Visit the official TNP Products website for FAQs, product updates, and additional support resources.

