

S-V16P

16 CHANNEL VIDEO AND POWER RACK BALUN






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DESIGN WITH INTELLIGENCE

Important Safety Instructions

- **Please completely read and verify you understand all instructions in this manual before operating this equipment.**
- Keep these instructions in a safe, accessible place for future reference.
- Heed all warnings.
- Follow all instructions.
- Do not use this apparatus near water.
- Clean only with a dry cloth.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Use only accessories specified or recommended by Intelix.
- Explanation of graphical symbols:
 - Lightning bolt/flash symbol: the lightning bolt/flash and arrowhead within an equilateral triangle symbol is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product enclosure which may be of sufficient magnitude to constitute a risk of shock to a person or persons. 
 - Exclamation point symbol: the exclamation point within an equilateral triangle symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product. 
- **WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE AND OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHOULD NOT BE PLACED ON THIS APPARATUS.**
- Use the mains plug to disconnect the apparatus from the mains.
- **THE MAINS PLUG OF THE POWER SUPPLY CORD MUST REMAIN READILY ACCESSIBLE.**
- Do not defeat the safety purpose polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of your obsolete outlet. **Caution! To reduce the risk of electrical shock, grounding of the center pin of this plug must be maintained.**
- Protect the power cord from being walked on or pinched particularly at the plugs, convenience receptacles, and the point where they exit from the apparatus.
- Do not block the air ventilation openings. Only mount the equipment per Intelix’s instructions.
- Use only with the cart, stand, tripod, bracket, table, or rack specified by Intelix or sold with the equipment. When/if a cart is used, use caution when moving the cart/equipment combination to avoid injury from tip-over. 
- Unplug this apparatus during lightning storms or when unused for long periods of time.
- **Caution! Shock Hazard.** Do not open the unit. Refer 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.
- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as the 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.

Overview

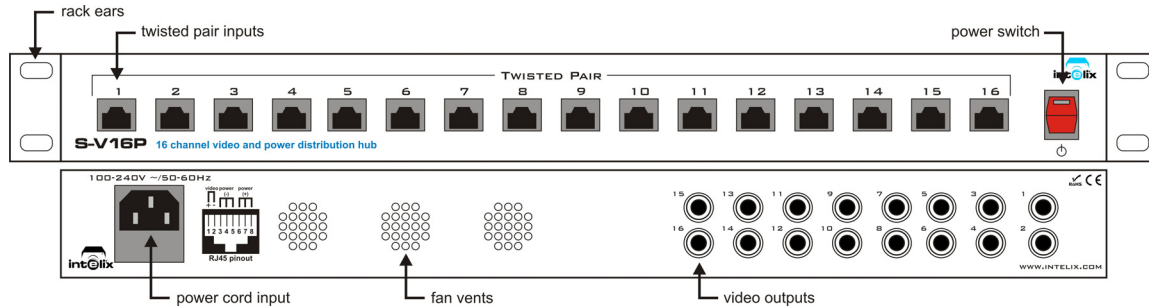
The Intelix S-V16P transmits composite video and power over a single twisted pair cable, such as Cat 5 or Cat 6. When used with compatible Intelix baluns, the S-V16P receives video from remote sources, such as cameras, and supplies power to all sixteen remote channels. The power circuit in the S-V16P combines twisted pairs 1, 2, and 4 for power distribution, allowing higher voltage and longer distances.

The S-V16P features a wave filter and anti-static design, mounts in a single 1RU 19" rack space, and conforms to IEC 61000-4-2:1995 standards. The unit is ideal for security and monitoring applications with such equipment as CCTV cameras, monitors, DVRs, video sequencers, video multiplexers, quads, switchers, and servers.

When signal quality matters, choose Intelix.

S-V16P Package Contents

- S-V16P rack mount balun
- Power cord
- 19" rack-mounting ears
- Manual



Installation and Operation

To install the Intelix S-V16P rack mount balun, please perform the following steps.

1. If mounting in a 19" audio/video rack, affix the 19" rack ears to the S-V16P. The S-V16P requires 1 rack unit of spacing.

Ventilation when Rack Mounting

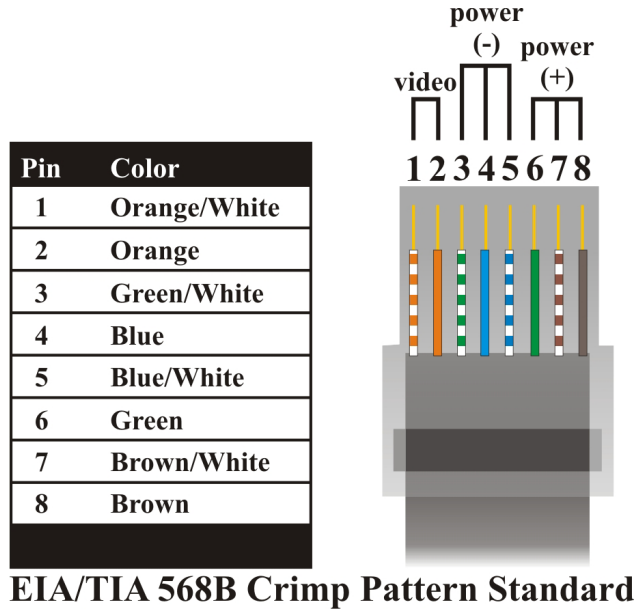
- At least 2 inches of free air space is required on both sides of the S-V16P for proper side ventilation.
- Ensure there are no closeable doors on the rack that might seal the S-V16P from a steady supply of cool air.
- Avoid mounting the S-V16P near a power amplifier or any other source of significant heat.
- It is recommended that you leave an empty rack space above and below the S-V16P for additional cooling.

2. Power-off the source and destination audio and video devices.

Caution: To minimize the possibility of equipment damage from electrostatic discharge (ESD), all source and destination equipment must be powered off during installation. This includes signal extenders, splitters, and switches.

3. Connect the output destinations to the S-V16P using high-quality BNC cables.
4. Connect the input sources to the S-V16P using twisted pair cables, such as Cat 5, Cat 5e or Cat 6. The RJ45 pinout in the twisted pair cabling should conform to the EIA/TIA 568A or 568B standard.

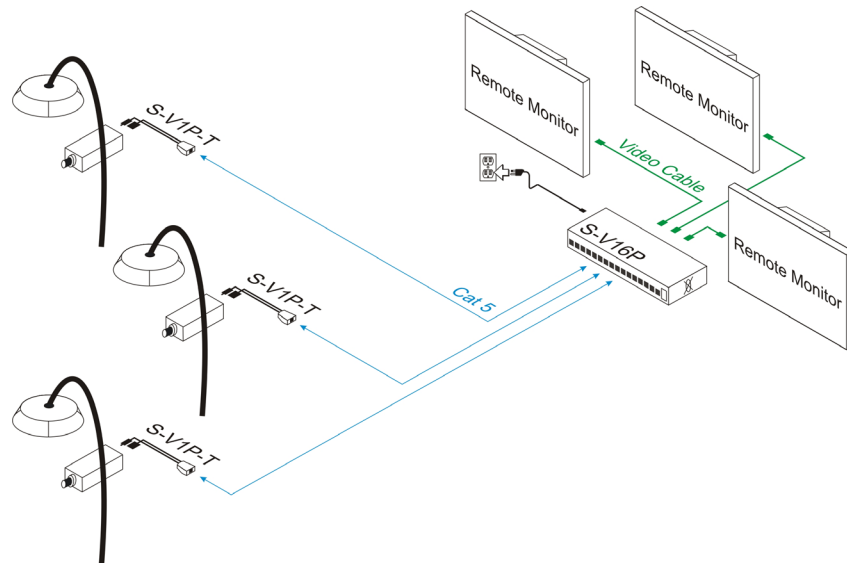
Caution: Do not connect the balun to a telecommunication outlet wired to unrelated equipment. Doing so may damage the unit or any connected equipment. Ensure all connected twisted pair cabling is straight-through (point-to-point).



- Verify the remote end of the twisted pair cables are connected to a compatible Intelix balun.

<u>Compatible Intelix Baluns</u>		
Product	Signals	Max Distance
S-V1P-T	composite video and power	800 feet
S-V1P-T	composite video	1,000 feet
S-V1ST	composite video	1,000 feet

- Connect the included power cable to the S-V16P.
- Power-on the S-V16P.
- Power-on the source and destination audio and video devices.



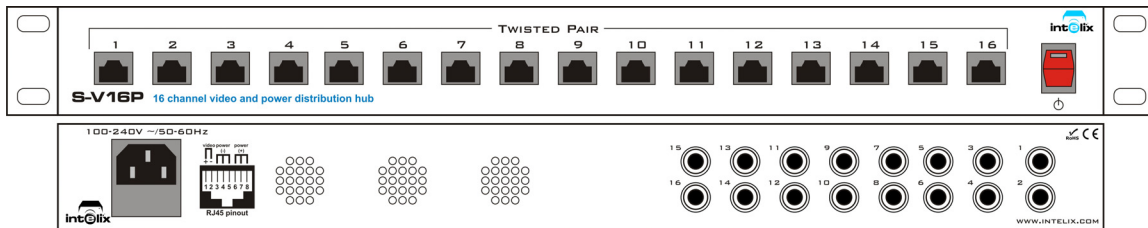
Troubleshooting

Symptom	Probable Causes	Possible Solutions
Insufficient power	Recommended cabling distance has been exceeded	Decrease the overall cable distance.
Image not stable	Defective link or equipment	Verify source and destination equipment and cabling
Unusual colors	Reversed polarity	Verify RJ45 pinout conforms to EIA/TIA 568A or 568B standard
Smearing or weak video contrast	Exceeded cable distance	Verify cable grade and total cabling distance
Horizontal bars moving upward in background	Ground loop problem	Verify the source and destination equipment are at the same ground potential. Ground the source and destination equipment.
Shaking image	Ground loop problem	Verify the source and destination equipment are at the same ground potential . Ground the source and destination equipment.
Variance in hue	EMI interference	Identify possible radiating frequency sources and isolate them from the cabling. Use shielded twisted pair cabling.
Background pattern	EMI interference	Identify possible radiating frequency sources and isolate them from the cabling. Use shielded twisted pair cabling.

Technical Specifications

Maximum Distance*	Video: 1,000 feet Power: 800 feet
Input Power	100-240V AC 50 – 60 Hz
Output Power Supply	120W 13V DC
Output Maximum Current	9.2A
Distortion	Less than 3%
Bandwidth	DC to 6 MHz
Impedance	75 ohms
Insertion Loss	Less than 2 dB over the frequency range
Return Loss	Greater than 15 dB over the frequency range
Common Mode Rejection	Greater than 40 dB over the frequency range
Video Input Protection	2KV IEC6100-4-5/1955(GB/T) 1726,5-1999
Video Input Protection	4KV 10/700us
Interference Rejection	Yes
Compatible Cable	Cat 5, Cat 5e, Cat 6, Cat 7
Compatible Intelix Baluns	Video and Power: S-V1P-T Video: S-V1ST
Input Connectors	16 RJ45
Output Connectors	16 female BNC
RJ45 Pinout	Video: 1 & 2 Power: 3 & 6, 4 & 5, 7 & 8
Operating Temperature Range	-41 to 95 degrees F -5 to 35 degrees C
Operating Humidity Range	5 to 90% non-condensing
Dimensions	17.0" x 6.9" x 1.8" 1 RU
Enclosure	Shielded metal
Regulatory	FCC, CE, RoHS
Intelix Part Number	S-V16P
Warranty	2 years

* Distances and picture quality may be affected by cable grade, cable quality, source and destination equipment, RF and electrical interference, and cable patches. Intelix specifications are based on straight-through cabling with standard-grade Cat 5.



Warranty

Intelix warrants to the original purchaser of new and B-stock products that the product will be free from defects in material and workmanship for a period of 2 years from the date of purchase from an authorized Intelix reseller, subject to the terms and conditions set forth below.

All Intelix products are guaranteed against malfunction due to defects in materials or workmanship for two years after date of purchase. If a malfunction does occur during the specified period, the defective product will be repaired or replaced at Intelix's option without charge. As a condition to receiving the benefits of this warranty, you must provide Intelix with documentation that establishes you were the original purchaser of the Intelix products. If you are not the original purchaser, the Intelix equipment must be accompanied by dated documentation of proof of purchase.

This warranty does not cover: 1) Malfunction resulting from use of the product other than as specified in the user manual; 2) Installation specific wiring; 3) Malfunction resulting from abuse or misuse of the product; 4) Exterior chassis appearance; 5) Malfunction occurring after repairs have been made by anyone other than Intelix or any of its authorized service representatives; 6) Acts of nature; 7) Optional software upgrades or updates.

This warranty will be void if the product's serial number or quality control sticker has been removed or defaced, or if the product has been altered, subjected to damage or abuse, repaired by any person not authorized by Intelix to make repairs, or installed in any manner that does not comply with Intelix's recommendations.

This warranty is in lieu of all other warranties, express or implied. Intelix disclaims all other warranties, express or implied, including, but not limited to, implied warranties of merchantability and fitness for a particular purpose.

No agent or reseller of Intelix is authorized to modify this warranty or to make additional warranties on behalf of Intelix. Statements, representations or warranties made by any party other than Intelix does not constitute warranties by Intelix. Intelix shall not be responsible or liable for any statement, representation or warranty made by any other person or party.

Warranty service is only offered after a return authorization (RA) number has been generated by an authorized Intelix factory representative. This RA number must be clearly referenced on the outside of all packages shipped to Intelix. Intelix Applications must be contacted prior to any return of goods; all return shipments received by Intelix without an RA number will be refused. All shipments must be received within 30 days from the RA number issue date.

At Intelix's option, Intelix will advance replace failing Intelix goods on direct reseller accounts within 90 days of shipment from Intelix. The advanced replaced goods will be invoiced and payment will be due under standard terms if the failing goods are not received within 14 days of the advanced replacement shipment.

Intelix will match shipping method for units still under warranty. If a unit which is out of warranty needs repair, the dealer must pay for shipping, replacement

parts, and a fixed \$100/hr* labor fee. Normal Intelix credit terms apply to billable repairs. If a unit is returned and found to work according to factory specifications, a \$100 service fee* is billed regardless of warranty status. All repairs are made in a reasonably quoted amount of time; a rush shipment fee of \$50* may apply to repairs needing a quicker than usual turn-around time.

All goods outside of the standard warranty period which are repaired by Intelix are covered by an additional 90 day warranty. This 90 day warranty only covers the specific repaired components. All other standard warranty limitations apply.

**Or current applicable rate/fee.*

Warranty terms and conditions subject to change and do not apply outside of United States and Canada.

Intelix Warranty is subject to change. Please contact the factory for the most up-to-date information.

Thank you for your purchase.

We appreciate your business. Please contact us with your questions and comments.

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