

## PATTON MODEL 470 SERIES SPECIFICATIONS

<b>Transmission Medium:</b>	155.52 Mbps ATM over Twisted Pair
<b>75 Ohm Connection:</b>	Dual BNC Coax Connectors (female, 75 Ohm)
<b>Power Supply</b>	None Required
<b>Dimensions:</b>	
<b>Model 470:</b>	<b>100 Ohm</b> CAT-5 single 8-pin RJ-45 Jack, Shielded
<b>Model 471:</b>	<b>120 Ohm</b> CAT-5 Single 8-pin RJ-45 Jack, Shielded
<b>Model 472:</b>	<b>150 Ohm</b> IBM Data Connector, 2 Twisted Pair, Shielded

# USER MANUAL

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## MODEL 470 Series ATM Coax to Twisted Pair Adapters (Baluns)



**PATTON**  
**Electronics Co.**



An ISO-9001  
Certified Company

Part #07M470-A  
Doc. #019091UA  
Revised 9/11/98

SALES OFFICE  
(301) 975-1000  
TECHNICAL SUPPORT  
(301) 975-1007  
<http://www.patton.com>

## WARRANTY

**Patton Electronics** warrants all Model 470 Series components to be free from defects, and will—at our option—repair or replace the product should it fail within one year from the first date of shipment. This warranty is limited to defects in workmanship or materials, and does not cover customer damage, abuse or unauthorized modification. If this product fails or does not perform as warranted, your sole recourse shall be repair or replacement as described above. Under no condition shall **Patton Electronics** be liable for any damages incurred by the use of this product. These damages include, but are not limited to, the following: lost profits, lost savings and incidental or consequential damages arising from the use of or inability to use this product. **Patton Electronics** specifically disclaims all other warranties, expressed or implied, and the installation or use of this product shall be deemed an acceptance of these terms by the user.

## SERVICE AND SUPPORT

All warranty and non-warranty repairs must be returned freight prepaid and insured to Patton Electronics. All returns must have a Return Materials Authorization number on the outside of the shipping container. This number may be obtained from Patton Electronics Technical Service at (301) 975-1007; <http://www.patton.com>; or, [support@patton.com](mailto:support@patton.com) **NOTE:** Packages received without an RMA number will not be accepted. Patton Electronics' technical staff is also available to answer any questions that might arise concerning the installation or use of your Model 470 Series. Technical Service hours: **8AM to 5PM EST, Monday through Friday.**

## CE NOTICE

The CE symbol on your Patton Electronics equipment indicates that it is in compliance with the Electromagnetic Compatibility (EMC) directive and the Low Voltage Directive (LVD) of the Union European (EU). A Certificate of Compliance is available by contacting Patton Technical Support.

## PRODUCT DESCRIPTION

**The Patton Model 470 Series ATM baluns** allow 75 ohm coax hardware to communicate with 100 Ohm, 120 Ohm, or 150 Ohm twisted pair equipment. The Model 470 Series presents a ready solution to this termination mismatch. Supporting ATM data rates to 155.52 Mbps, the Model 471/471/472 convert 75 Ohm signals and vice versa to 100, 120, and 150 Ohm twisted pair, respectively.

**Model 470:** 75 Ohm to 100 Ohm CAT-5 Single 8-Pin RJ-45 Jack,  
**Model 471:** 75 Ohm to 120 Ohm CAT-5 single 8-Pin RJ45 Jack,  
**Model 472:** 75 Ohm to 150 Ohm IBM Data Connector (2 Twisted Pair)

## CONFIGURATION

The Model 470 Series are pre-set to work in most applications without additional configuration. The only parameter that is user-configurable is shield connection between the 75 Ohm coax and twisted pair interfaces. The diagram below shows how the shield is connected between the modular jack and dual BNCs. Removing the jumper breaks the connection.

<u>Coax BNC (75 Ohm)</u>	<u>Jumper</u>	<u>RJ-45 (100/120) or IDC (150 Ohm)</u>
TX Shield	JP1	RJ-45 Shield, IBM IDC Shield
TX Shield	JP2	RJ-45 Shield, IBM IDC Shield

The factory setting leaves both jumpers JP1 and JP2 in place, thus passing both shield connections through. To break one or both of the shield connections, follow these instructions:

- 1) Insert a small flat blade screwdriver into the slot on the side of the Model 470 Series case and twist. The case will pop open, exposing the PC board.
- 2) Holding the PC board with the modular jack facing left, located jumper JP1 toward the top of the board and JP2 toward the bottom of the board. Remove the desired jumper(s) from the two pins on the right (for JP1) and from the 2 pins on the left (for JP2) to break one or both shield connections. **NOTE:** do not lose the jumper(s).
- 3) Re-align the case halves and end inserts and snap the case halves back together.

## INSTALLATION

The Model 470 Series is easy to install and requires no AC power or batteries for operation. After making any necessary configuration changes (see above), simply plug in the modular and coax cables as indicated on the case. The pin/contact configuration of the 100/120 Ohm RJ-45 and 150 Ohm IDC modular connectors is shown below:

<u>RJ-45 Pin(s)</u>	<u>IDC Contact</u>	<u>Function</u>
1	B	Transmit +
2	O	Transmit -
7	R	Receive +
8	G	Receive -