

Welcome!

We greatly appreciate your purchase of the AC301-201 TCP/IP to RS-232 Adapter. We are sure you will find it reliable and simple to use. Superior performance for the right price, backed by solid technical and customer support is what ALTINEX has to offer.

We are committed to providing our customers with Signal Management Solutions® to the most demanding audiovisual installations at very competitive pricing and we welcome you to join the ranks of our many satisfied customers throughout the world.

1. Precautions and Safety Warnings

Please read this manual carefully before using your AC301-201. Keep this manual handy for future reference. These safety instructions are to ensure the long life of your AC301-201 and to prevent fire and shock hazards. Please read them carefully and heed all warnings.

1.1 General

- Qualified ALTINEX service personnel or their authorized representatives must perform all service.

1.2 Installation Precautions

- To prevent fire or shock, do not expose this unit to water or moisture. Do not place the AC301-201 in direct sunlight, near heaters or heat-radiating appliances, or near any liquid. Exposure to direct sunlight, smoke, or steam can harm internal components.
- Handle the AC301-201 carefully. Dropping or jarring can cause damage.
- Do not pull the cables that are attached to the AC301-201.

2. Installation Procedures

- Step 1. Connect the AC301-201 directly to the 9-pin D-sub connector of the MultiTasker enclosure or other RS-232 serial controlled device. If connecting through a cable and not directly to the MultiTasker, make sure the cable has a conductor for pin 9 or use the external adapter.
- Step 2. If controlling a device other than a MultiTasker enclosure, it is necessary to connect the external power adapter to the DC power jack located on the side of the AC301-201. The LED should be on and red when power is present. The LED inside the AC301-201 is located near the RJ-45 connector and is visible through the seam in the enclosure.
- Step 3. Connect the RJ-45 connector on the opposite end of the AC301-201 to the LAN using a standard UTP (CAT-5) type cable.
- Step 4. The AC301-201 is now operational. The default IP is assigned by the LAN and uses port number 10001 for the TCP/IP connection.

Note: The IP can be preset by ALTINEX at the time of purchase. For best results, have a fixed IP assigned by your IT department and then set by ALTINEX prior to shipping. See Section 7.1 of the online manual for changing the configuration using the DeviceInstaller application or use the TELNET option below.

- Step 5. Change the IP address or baud rate using TELNET from a command prompt. The TELNET port is "9999".
 - A. At the command prompt enter "TELNET", the current IP, and port 9999. Example: "C:\> TELNET 192.168.1.155 9999"
 - B. Press "Enter" when prompted to enter the setup mode.
 - C. Select the option to change, and at each prompt enter the new value or just press "Enter" to leave unchanged.
 - Option "0 Server"..... Change IP, mask, and gateway. (set IP 0.0.0.0 for DHCP)
 - Option "1 Channel 1" Change baud rate
 - Option "8 Exit without save"..... Cancel changes and exit setup mode
 - Option "9 Save and Exit" Save changes and exitThe changes may take a few seconds to be recognized by the network.

3. Limited Warranty/Return policies

Please see the ALTINEX website at www.altinex.com for details on warranty and return policies.



4. Technical Specifications

Specifications are subject to change. See www.altinex.com for up-to-date information.

Features/Description	AC301-201
Input/Output	
Ethernet/LAN	RJ-45 F (1)
Serial	9-pin D-sub M (1)
Compatibility	
Baud Rates	1200 through 115,200

Table 1. AC301-201 General

Mechanical	AC301-201
Material	0.06" Plastic
Color	Black
Height (inches)	0.92 in (23.4 mm)
Width (inches)	1.68 in (42.7 mm)
Depth (inches)	3.35 in (85.1 mm)
Weight (pounds)	0.40lb (0.18kg)
T° Operating	10°C-35°C
T° Maximum	50°C
Humidity	90% non-condensing
MTBF (calculations)	40,000 hrs

Table 2. AC301-201 Mechanical

Electrical	AC301-201
Input/Output Signal	
Serial (9-pin D-Sub)	RS-232 Standard
Ethernet/LAN	TCP/IP 10/100 Mbps
Default Settings	
IP (automatic allocation)	DHCP
Subnet mask	255.255.255.0
Gateway	0.0.0.0
Port	10001
RS-232	9600 Baud
Power	
External Adapter	9VDC@500mA
MultiTasker	6VDC from MultiTasker

Table 3. AC301-201 Electrical

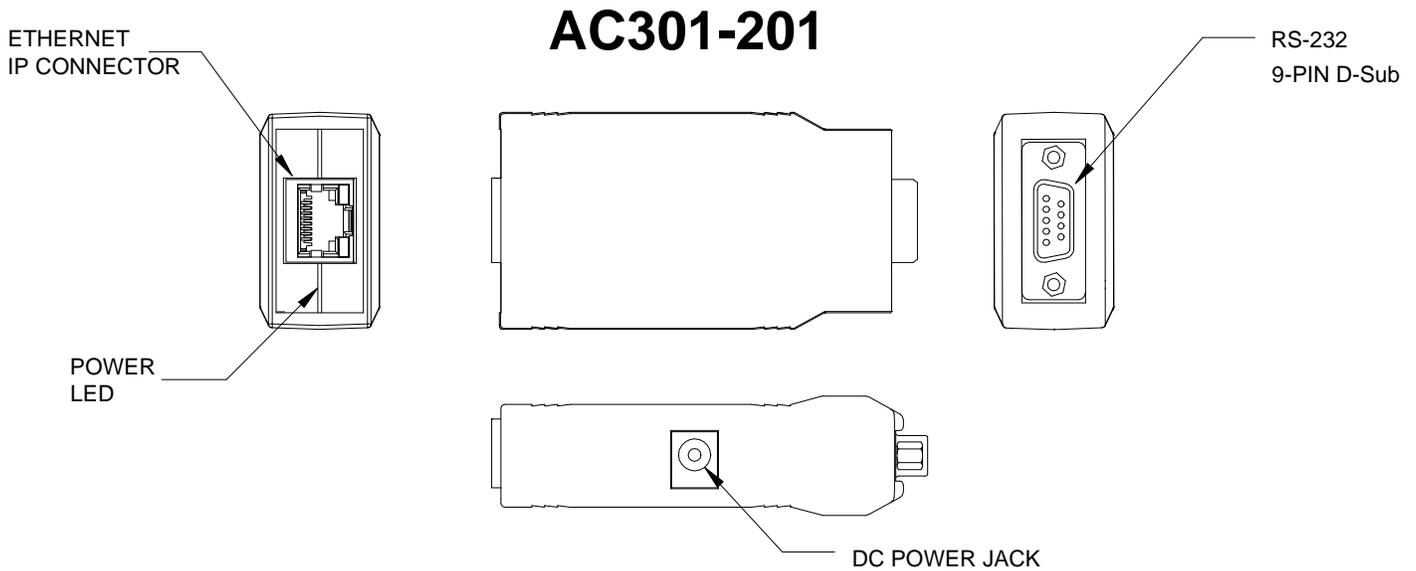
* The AC301-201 receives power from the MultiTasker enclosure. If the AC301-201 is used to communicate with a different device, it must be powered using an external adapter.

** The MultiTasker enclosure provides power to the AC301-201 through the 9-pin connector. If using a cable between the AC301-201 and the MultiTasker, make sure that pin 9 has a conductor present.

5. About Your AC301-201

The AC301-201 provides a method for communicating with a MultiTasker system, or other RS-232 serial device, over an existing local area network (LAN). The IP address (Internet Protocol address) may be set automatically or assigned manually during the initial installation.

The AC301-201 is compact and easy to use. It offers a male 9-pin D-Sub RS-232 serial input connection and a female RJ-45 network connection. Additional features include an adjustable baud rate and built-in ESD protection.



6. Application Diagrams

Diagram 1: Typical Setup

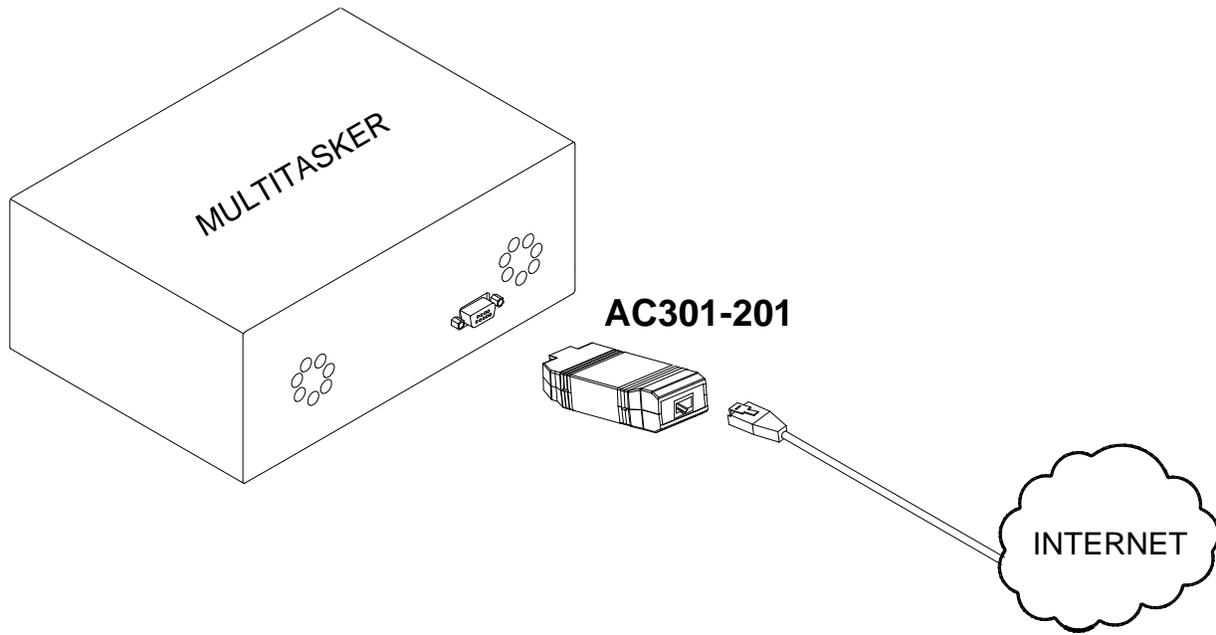
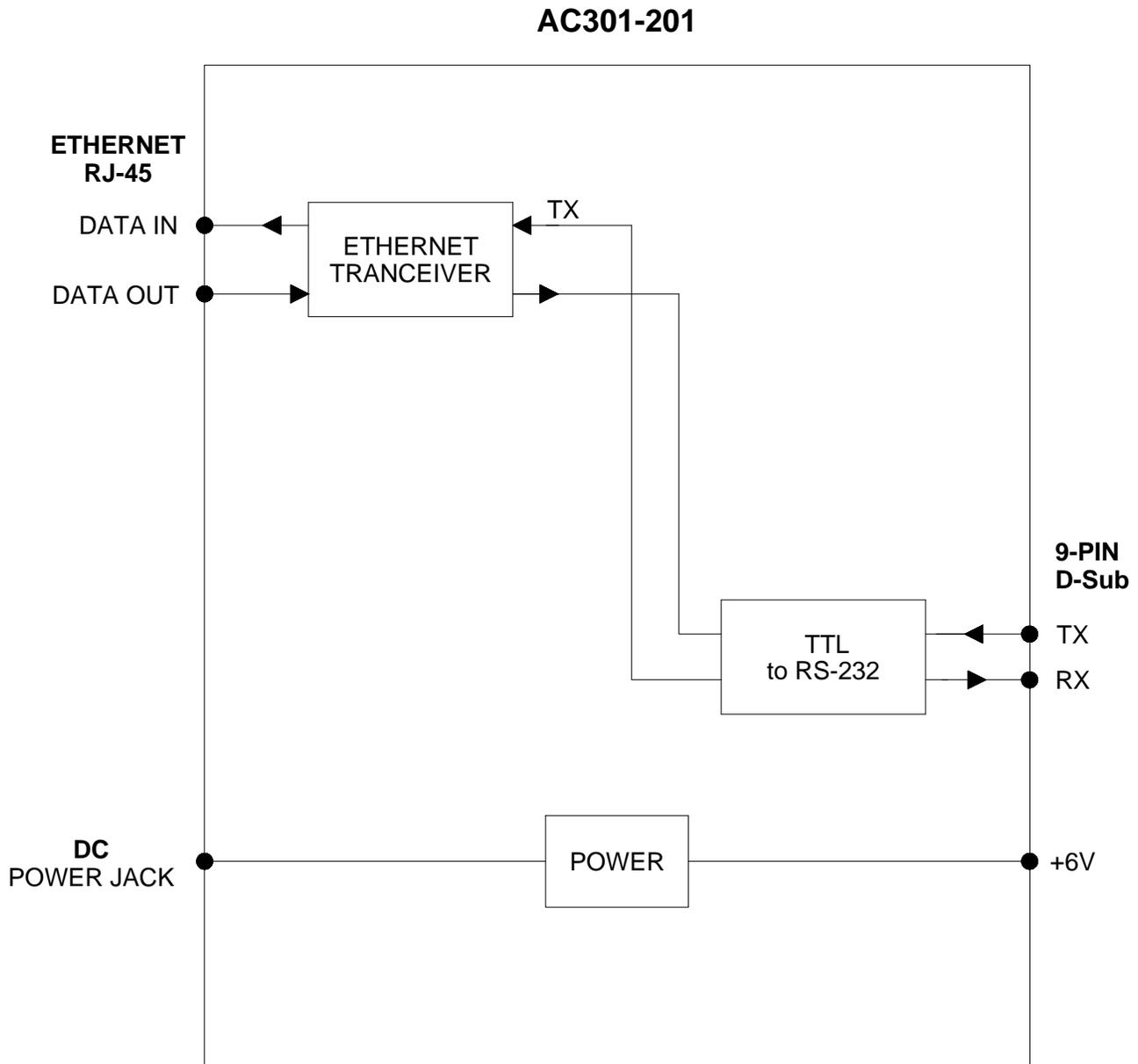


Diagram 2: Internal View



7. Operation

The AC301-201 requires no adjustments for operation. Once connected, the AC301-201 will work trouble free without user intervention.

7.1 TCP/IP Setup

Note: This section uses the DeviceInstaller application to change the AC301-201 configuration or the device.

DeviceInstaller

- Download the "DeviceInstaller" for the XPort device from the ALTINEX website, www.altinex.com.

The "DeviceInstaller" is a software utility for the Ethernet to serial controller. This software requires Windows .NET Framework to be installed on the computer.
- Run "setup.exe" from the downloaded files to install the application.
- Connect the AC301-201 to the LAN using standard CAT-5 cable.
- The device must have power on in order to proceed. Make sure the power LED is on and red.
- Launch the installer from the Start menu or from the directory noted earlier. This will allow the configuration of the XPort device.
- Click on the "Search" button to check for new devices on the LAN. This will take a few seconds.



The IP Address

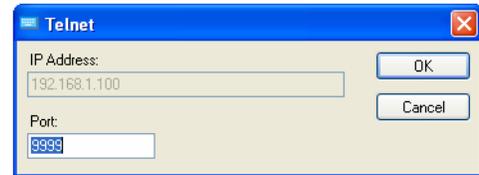
- Once the device is located, click on the device in the installer window and make note of the IP address.



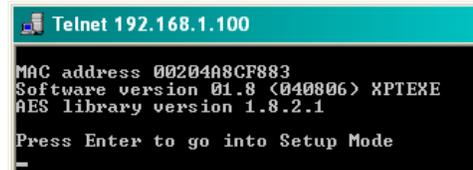
Note: If you want to assign the IP manually, click "Assign IP." This method may require the assistance of your IT Administrator.

Configure the Device

- The device may be configured using a web browser or using a Telnet session. This procedure uses the Telnet option. Click the "Telnet" button and do not change the default port number of "9999." Click "OK" to proceed.



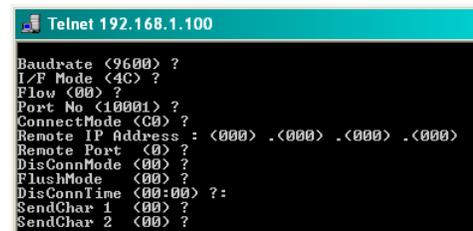
- When the command window appears, press Enter when prompted to enter Setup Mode.



- At the "Change Setup" prompt, select "Factory Defaults."



- Next, select "Channel 1 Configuration."
- View each line item as it appears. Press Enter to leave the default value, or enter the new value and press Enter.



NOTE: The "Port No." in the configuration menu is the COM port used for RS-232 communication.

- Select "Save and Exit" to keep the changes and exit setup mode.
- Close the DeviceInstaller; setup is complete. Use the port number assigned above to communicate over the LAN.
- Launch AVSnap or other communication software in order to communicate with the MultiTasker.
- Setup the TCP/IP connection using the Host and Port numbers assigned during the above installation.

7.2 Connection Examples

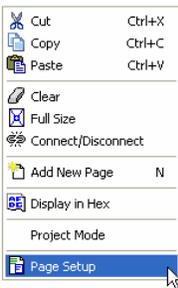
Following are connection examples using AVSnap and HyperTerminal:

Example - AVSnap:

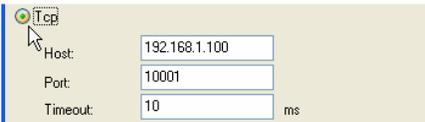
1. Launch AVSnap and enter "Communication Mode."



2. Right click in the terminal window and select "Page Setup."



3. Under the COM Setup, select the TCP option. Enter the IP address for the Host and port number (10001 is the default from above) for the Port.



The IP address 192.168.1.100 is only an example. Your IP address will vary depending on your network settings.

Example - HyperTerminal:

1. Launch HyperTerminal and start a new connection. This example uses the connection name "AC301-201" and HyperTerminal version 5.1 running under Windows XP.



2. Select "Connect Using: TCP/IP" and then enter the IP address and port number.



8. Troubleshooting Guide

We have carefully tested and found no problems in the supplied AC301-201. However, we would like to offer suggestions for the following:

8.1 LED is Not Red

There is a power LED next to the RJ-45 connector on the AC301-201. The LED is visible through the seam of the plastic enclosure.

Cause 1: There is no power.

Solution: Verify the AC301-201 is connected directly to the MultiTasker and that the MultiTasker enclosure has power and is turned on. If LED is still not on, see Cause 2.

Cause 2: The wrong cable is being used.

Solution: If there is a cable between the AC301-201 and the MultiTasker, verify pin 9 of the cable has continuity throughout the cable. If the LED is still not on, see Cause 3.

Cause 3: The AC301-201 is not connected to a MultiTasker.

Solution: If the AC301-201 is not connected to a MultiTasker, then the external power adapter must be connected. Connect the power adapter to the AC301-201. If the LED is still not on, see Cause 4.

Cause 4: The AC301-201 has a problem.

Solution: If there is still no power, the AC301-201 may require service. Please, call ALTINEX at (714) 990-2300.

8.2 No Communication

Cause 1: The devices are incompatible.

Solution: Connect the computer directly to the destination device using a standard RS-232 cable. If the devices communicate without the AC301-201, the problem is with the cables or AC301-201; see Cause 2.

Cause 2: Cable connections are wrong.

Solution 1: Verify the output of the AC301-201 is connected to the input of the serial device.

Solution 2: Verify that the Signal Present LED on the AC301-201 is on and red. If the LED is on and red, check the connection between the computer and the AC301-201.

Solution 3: If the LED on the AC301-201 is red, use the DeviceInstaller as described in the installation section. If the AC301-201 is seen on the network and the LED is on and red, and there is still no communication, call ALTINEX at (714) 990-2300.