

# CONNECTING RAD-80211... RADIOS AND PELCO SPECTRA CAMERA

## Configuring RAD-80211... Radios to Interface with Pelco Spectra Cameras with a Net300 Transmitter

### INTERFACE

Application Note

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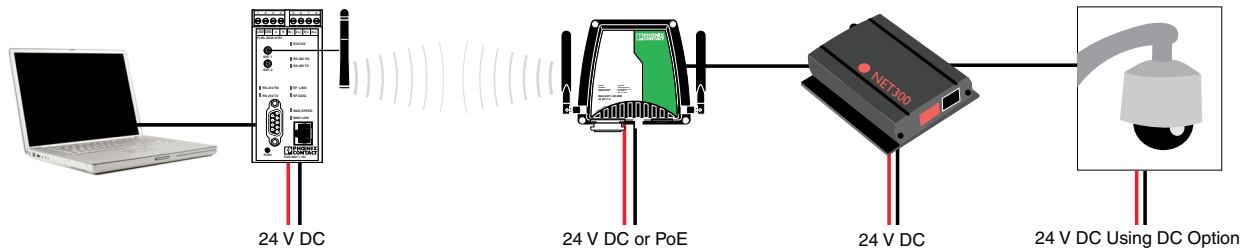


Figure 1. Pelco Spectra Radio

### Introduction

This document describes the steps for configuring RAD-80211... radios to operate in Bridge Mode with a Pelco Spectra III Security Camera and NET300 video server.



**NOTE:** The following steps configure the Ethernet radios in Bridge Mode. The radios can also be configured in Access Point/Client Mode. Refer to the Ethernet radio Quick Start Guide for Access Point/Client Configuration.

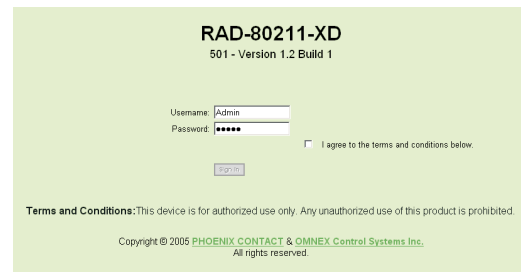
### Configuration of Ethernet Radios

1. Connect a PC to one of the RAD-80211... radios using an Ethernet cable.
2. Apply power to the transceiver and open a web browser such as Internet Explorer, on the connected computer.
3. Enter the following IP address into the "Address" field of the browser:  
192.168.254.254



**NOTE:** The computer must be in the same subnet as the radio. Refer to Ethernet radio Quick Start Guide for proper setup.

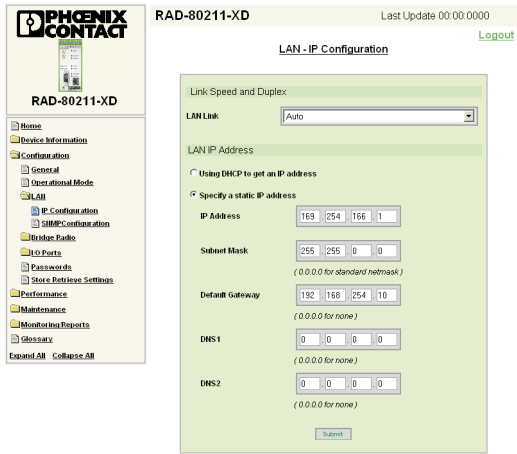
4. On the screen that appears, enter the default case-sensitive credentials:  
User name: Admin  
Password: admin
5. Check the box to agree to the terms and conditions and click the "Sign In" button.



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Figure 2. Sign In Window

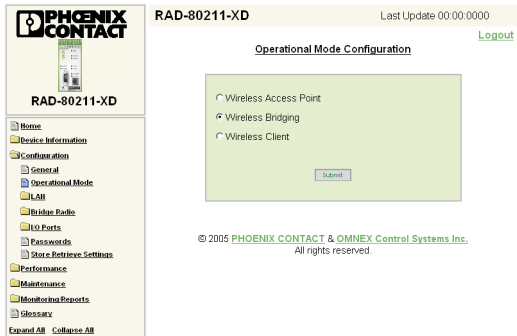
6. Select the "LAN... IP Configuration" menu to set the Bridge interfaces to the LAN.
7. From the "LANLink" combo box, enter the speed of the LAN or select "Auto" to have the software determine network speed automatically.



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Figure 3. LAN-IP Configuration

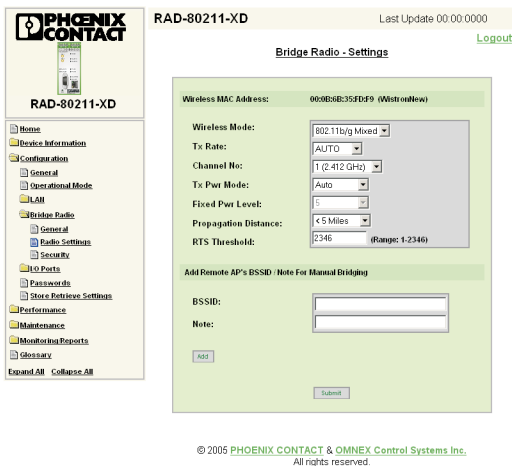
8. If the network does not support DHCP (Dynamic Host Configuration Protocol), specify a static IP Address, Subnet Mask and Default Gateway.
9. Click the “Submit” button to activate the new LAN settings.
10. Select the “Configuration... Operational Mode” menu. Choose Wireless Bridging and click the “Submit” button.



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Figure 4. Operational Mode Configuration

11. Select “Bridge Radio... Radio Settings” from the left-side menu.



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Figure 5. Bridge Radio Settings

12. From the “Wireless Mode” drop-down menu, choose a Wireless Mode (802.11a, 802.11b, 802.11g, or 802.11b/g mixed). All transceivers in a network must have the same Wireless Mode.
13. From the “Channel No.” drop-down menu, choose a Channel No. All transceivers in a network must use the same Channel No.



NOTE: For 802.11b/g, Channels 1, 6 and 11 have the least channel overlap.

14. Enter the MAC Address of the corresponding radio in the “BSSID” field. Add a note, if desired, and click the “Add” button.



NOTE: The BSSID can be found under “Device Information... General.” Be sure to use the WLAN MAC Address.

15. Click the “Submit” button to enable the settings. The radios will attempt to link. The RF Link LED on the radio will light if bridging is successful.
16. Repeat this procedure for configuration of the other radio.

When both radios are configured, communication can be confirmed by pinging the radios for the PC. The Ethernet radios must have RF Connection IP Addresses not assigned to any other device on this network. If communication between the radios is not established, refer to the Ethernet radio Quick Start Guide.

**Configuration of Pelco Spectra III Security Camera**



**NOTE:** This document outlines connection and setup of a NET 300T video server and Pelco Spectra III camera operating on 24 V DC power with an RS-485 serial connection to the camera for control of pan/tilt/zoom functions. Other options are available from Pelco but are outside the scope of this document. If specific information on how to interface Phoenix Contact products to other Pelco cameras is required, contact Phoenix Contact's Technical Service.

1. Wiring the Pelco Spectra III: At the base of the Spectra dome, open the door containing the wiring for the camera.
2. Connect the COM and TAP A wires to the DC terminals on the Spectra III base.
3. Locate the RS-485 cable and connect the RxD- at the camera to the TcD- on the Net300t video decoder. Connect the TxD+ on the camera to the RxD+ on the Net300t control box. Connect the RS-485 ground wire to the ground screw on the control box. Connect the coaxial cable to the camera and Net300t control box.
4. Attach the video decoder to a PC for configuration, and insert the Pelco NET300 CD-ROM into the CD-ROM drive. A pop-up window with a picture of the NET300 appears with options to install the software.



Figure 6. Integrating Digital Video with NET300

5. Install the following software applications from the NET300 CD-ROM: MPEG ACTIVE X, NET-Manager and Microsoft Java Virtual Machine. Most computers already have Direct X 9.0 B and Internet Explorer 6 installed. However, if unsure, install all applications.
6. Once the programs are installed, check to make sure everything is connected correctly. The serial and coaxial cable are connected to the NET300t. The NET300 is powered and has an Ethernet cable connecting it to the RAD-80211...radio.
7. Open the NET-Manager program and click the "OK" button to scan the network. This scans the connections and locates the NET300 transmitter and any devices on the network.
8. Click the "IP Pool" button in the NET-Manager view window to open the IP Pool window.

9. Click the "Add" button to add an IP Range box. Enter the start and end addresses of the range. This range is user-specified to whatever range is needed for the network. An example of this is 192.168.254.31 to 192.168.254.32 with a subnet mask of 255.255.255.0.



**NOTE:** The number of devices connected to the network reflects the number range of the IP Pool. The NET-Manager will select the lowest available IP Address from the IP Pool for each device on the network.

10. In the list that appears, right-click the desired NET 300t and select "Change IP Address." Select "Obtain automatically from IP Pool," and NET-Manager will assign the first available address from the IP Pool.
11. Open Internet Explorer. Enter the Net 300t's IP address in the address and press "Enter" to connect. The example is 192.168.254.31.
12. Once connected, a screen displaying the camera image appears:

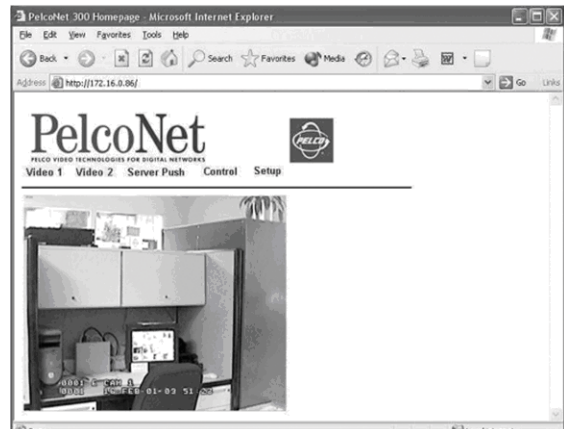


Figure 7. Camera Image Window

If there is no video, check the connections. Also, make sure the Microsoft Java Virtual Machine is installed. If it is not installed, there will be red Xs in the upper left corner.

13. Click the "Control" tab, and select the Spectra Dome System with Live Video to navigate with Tilt, Pan and Zoom control.

Setup of the camera is complete. The PC can be disconnected and operation verified from the master PC across the RAD-80211...radios.

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