Installation Guide for ENC-212 Pelco Spectra II/III Encoder

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You can determine whether your equipment is causing interference by turning it off. If the interference stops, it was probably caused by the e-Watch® equipment or one of its peripheral devices. If the equipment causes interference to radio or television reception, try to correct the interference by using one or more of the following measures:

Turn the television or radio antenna until the interference stops.
Move the equipment to one side or the other of the television or radio.
Move the equipment farther away from the television or radio.
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e-Watch systems do not prevent crimes from being committed, but are intended to be used to monitor and investigate.

e-Watch components are electronic devices and complex commercial software products. As such, they may fail on occasion. Multiple devices with overlapping zones should be used for redundancy.

e-Watch event notification capabilities must be user programmed and activated prior to use. System reliability is dependent on the underlying network infrastructure and associated communications services that may fail on occasion. The user of the e-Watch system is advised to evaluate risk associated with network failures and operator errors. Routine auditing and preventive maintenance of the system is essential to assure optimum performance.

Event analysis and recreation is subject to system configuration, lighting conditions, environmental conditions, lens and housing cleanliness, distance to subject, operator-invoked control settings, and many other factors.

Read and follow all documentation to assure proper performance.

CONTENTS

PREFACE

The preface describes the purpose, audience, organization, and conventions of this guide and provides information on how to obtain related documents.

The preface covers these topics:

- Purpose
- Audience
- Organization
- Related Documentation
- Conventions
- Obtaining Documentation
- Obtaining Assistance

Purpose

This document provides instruction for the installation of the ENC-212 Pelco Spectra II/III Encoder. The ENC-212 encoder is designed to work with Pelco Spectra models II and III. These instructions are **NOT** compatible with any other dome or pendant model. This document includes procedures for installing the encoder and wiring the system. This document provides parts lists and diagrams for the cable connections and wiring, as well as illustrations of the connections and construction required.

Audience

The Installation Guide for the Pelco Encoder provides information for hardware installation and is intended for qualified technicians involved in hardware maintenance and repair. This guide requires knowledge of basic electronic hardware installation and tools. The ability to lift five to ten pounds is required for installation of the kit.

Organization

This guide is organized as shown in the following table

Table 0-1. User Guide Organization

Part	Description
Part 1	'Installation Guide' Contains information on constructing and installing an ENC-212 Pelco Spectra II/III Encoder. Diagrams and procedures are included.
Part 2	'Appendices' Contains listings for parts required by the customer for construction of the ENC-212 Pelco Spectra II/III Encoder.

Related Documentation

Refer to the following documents for further information about the ENC-212 Pelco Spectra II/III Encoder.

- Pelco Spectra II installation manual C1487M-H (0/01)
- Pelco Spectra III installation manual C2442M (2/02)
- URG-9109-001—SiteWatch™ Situational Awareness Software Administration Guide

Conventions

This document uses the following conventions:

Table 0-2. Conventions

Convention	Description
Boldface font	Commands and keywords are in **boldface**.
Italic font	Arguments for which you supply values are in *italics*.
[ ]	Elements in square brackets are optional.
{x|y|z}	Alternate keywords are grouped in brackets and separated by vertical bars.
[x|y|z]	Optional keywords are grouped in brackets and separated by vertical bars.

String	A non-quoted set of characters. Do not use quotation marks around the string or the string will include the quotation marks.
`Screen font`	Terminal sessions and information the system displays are in `screen font`.
`Boldface screen font`	Information you must enter is in **`boldface`** `screen font`.
`Italic screen font`	Arguments for which you supply values are in *`italic`* `screen font`.
^	The symbol ^ represents the key labeled Control - for example, the key combination of ^D in a screen display means hold down the Control key while you press the D key.
-->	This pointer highlights an important line of text in an example.
<>	Non-printing characters, such as passwords, are in angle brackets.

Obtaining Documentation

The following sections provide sources for obtaining documentation from e-Watch Corporation.

World Wide Web

e-Watch documents can be found by going to the e-Watch web site www.e-watch.com.

By Mail

e-Watch Corporation
7800 IH 10 West, Suite 720
San Antonio, Texas 78230
210 349-2000

support@e-watch.com

Documentation Feedback

You can submit technical comments about e-Watch documentation in the following ways:

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To submit comments by mail, write to the following address:

e-Watch Corporation
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San Antonio, Texas 78230

We appreciate your comments.

Obtaining Assistance

The following sections provide sources for obtaining assistance from e-Watch Corporation.

Customer Support

For technical assistance, please send requests to support@e-watch.com or your local e-Watch reseller. If you have a software maintenance agreement, call 210-349-2000 and ask for Customer Support.

Sales

For assistance with sales or marketing, please call 210-349-2000 and ask for Sales or send requests to sales@e-watch.com.

CHAPTER 1

Introduction

e-Watch® Pelco Spectra II/III Encoder serves as a connection between Pelco Spectra II and III and the e-Watch® Situational Awareness System. The connection allows control of a Pelco Spectra II or III pendant/dome unit. This guide includes instructions for installing the encoder with the Pelco Spectra II or III system.

Key Features and Benefits

The e-Watch encoder is designed to encode legacy CCTV cameras and NTSC equipment and transmit the digital video signal over the network. The ENC-212 allows Pelco Spectra II and III cameras to be fully integrated into the e-Watch IP video surveillance system. Pelco controls and components are made available through the ViewWatch™ browser-based viewer.

e-Watch Situational Awareness System is an enterprise-wide surveillance system optimized for transmitting MPEG video streams, high resolution JPEG images, detected event data and other sensor and detector data using digital data transmission over both wired and wireless networks (LANs, WLANs). It is based on standard networking and Internet technology. Both real-time and archived data may be viewed from a monitor station or any authorized PC on the LAN, WAN or the Internet. The archive application tracks and maintains all situational awareness information and provides high-speed random access for fast location of specific data relating to events

Components Supplied with ENC-212

- e-Watch ENC-212. (*Figure 1-1*)

Figure 1-1 ENC-212

- The component card used in the e-Watch ENC-212 encoder allows for the control and support of Pelco Spectra II or Pelco Spectra III systems. This card is pre-installed in the encoder. (*Figure 1-2*)

Figure 1-2 Component Card

Components Supplied by Customer

- Pelco Spectra II or III pendant or dome camera.
- Cabling to connect the encoder to the IP network.
- Power to the encoder, either using an e-Watch power inserter or 12 VDC adapter.
- Cabling to connect the Pelco unit to the encoder:
    - Coaxial cable
    - CAT5 cable for controls
- Screwdriver, both Phillips and common.

For More Information

e-Watch Sales at sales@e-watch.com
e-Watch Customer Support at support@e-watch.com

CHAPTER 2

Installation of the ENC-212 Encoder

Installing

Spectra II Setup

Please refer to the Pelco Spectra II installation manual C1487M-H (0/01) for specific instructions relating to the following steps.

1. Set the dome SW1 switch to D-Type Control.
2. Set the dome SW2 switch to Receiver Address 1.
3. Set the RS-422 termination switch to ON.

Spectra III Setup

Please refer to the Pelco Spectra III installation manual C2442M (2/02) for specific instructions relating to the following steps.

1. Set SW 1-1 to **ON** position. All other switches off. (*Figure 2-1*).

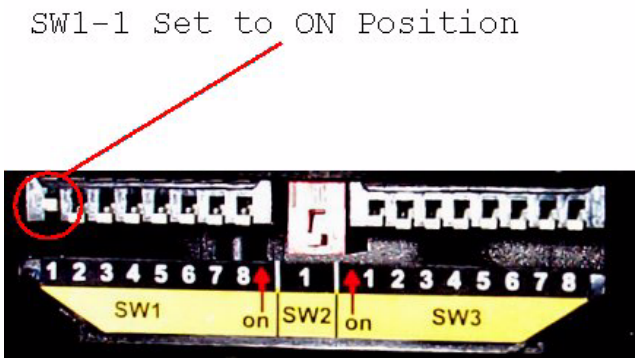

Figure 2-1 Pelco Spectra III SW Switch Settings

Wiring the Coax Connection

These instructions cover the wiring of the e-Watch encoder to the Pelco Spectra, using coax for video transfer from the Pelco Spectra to the e-Watch encoder (*Figure 2-8*).

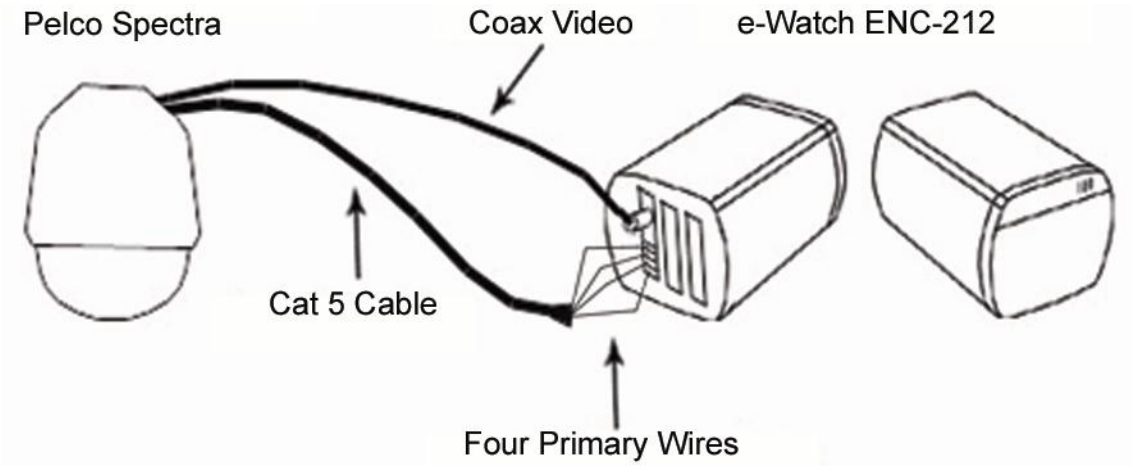

Figure 2-8 Wire Connections for Coax

Video Coaxial Cable Requirements for Pelco Spectra III

Cable Type *	**Maximum Distance**
RG59/U	750’ (229m)
RG6/U	1000’ (305m)
RG11/U	1500’ (457m)

Minimum cable requirements

- 75 ohms impedance
- All-copper center conductor
- All-copper braided shield with 95% braid coverage

1. Connect the four primary wires as follows (*Figure 2-9*).
   a. Encoder plug RX+ to Pelco Spectra TX+.
   b. Encoder plug RX- to Pelco Spectra TX-.
   c. Encoder plug TX+ to Pelco Spectra RX+.
   d. Encoder plug TX- to Pelco Spectra RX-.

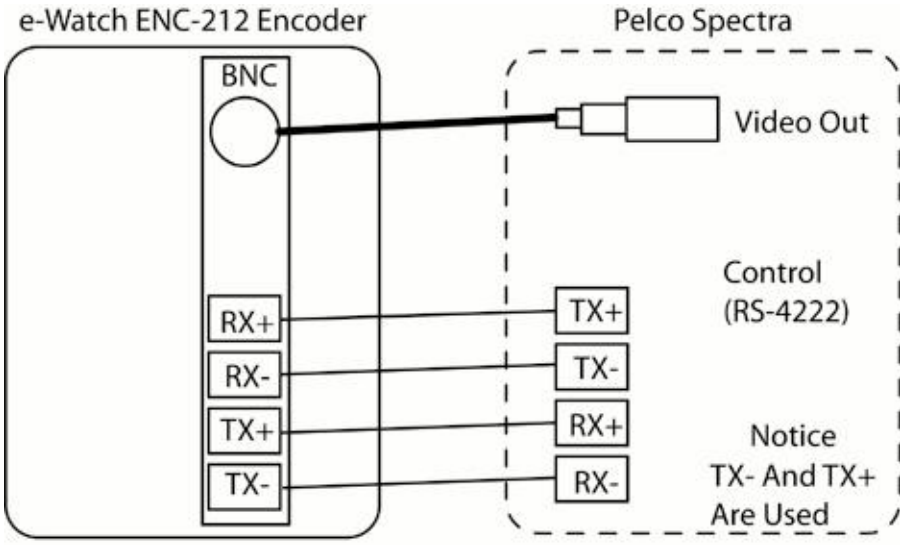

Figure 2-9 Wiring Diagram for Coax Transmission

2. Connect the coax cable to the top BNC connector on the encoder.
3. Connect the other end of the coax cable to the video out BNC connector on the Pelco Spectra.

Dome Power

24VAC Wiring Distances

The following are the recommended maximum distances for 24VAC applications and are calculated with a 10-percent voltage drop (10 percent is generally the maximum allowable voltage drop for AC-powered devices.)

Wire Gauge

Total vA	**20**	**18**	**16**	**14**
30	94’	150’	238’	380’
75	37’	60’	95’	152’

Note: Input power for the dome is 24VAC only. Power consumption is 30vA per dome for indoor models and 75 vA for outdoor models.

Use a 24VAC transformer with the following minimum vA:

- 40vA per dome for indoor models without heater.
- 100vA per dome for outdoor models with heater.

User Interface

To set up the user interface of the Pelco Spectra, you will need to use the SiteWatch™ application. This part of the installation assumes you have installed and configured the SiteWatch application. Proceed to the camera definition window of the SiteWatch application (*Figure 2-10*). Create a new or edit an existing camera definition. At the "External Device" drop down list, select Pelco Spectra II or Pelco Spectra III (*Figure 2-11*). Complete the camera definition as outlined in the SiteWatch Situational Awareness Administration Guide.

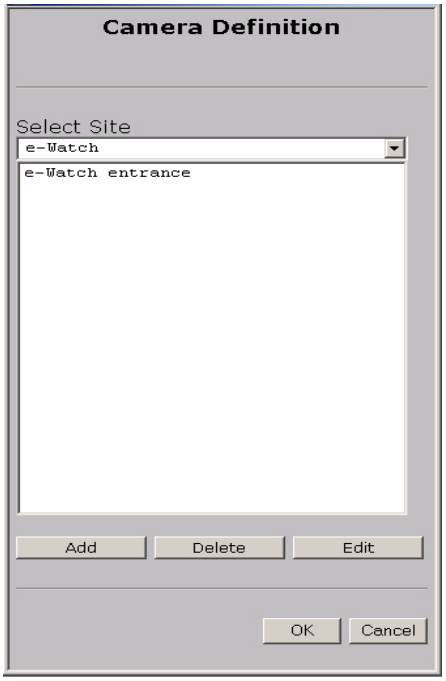

Figure 2-10 Camera Definition Screen

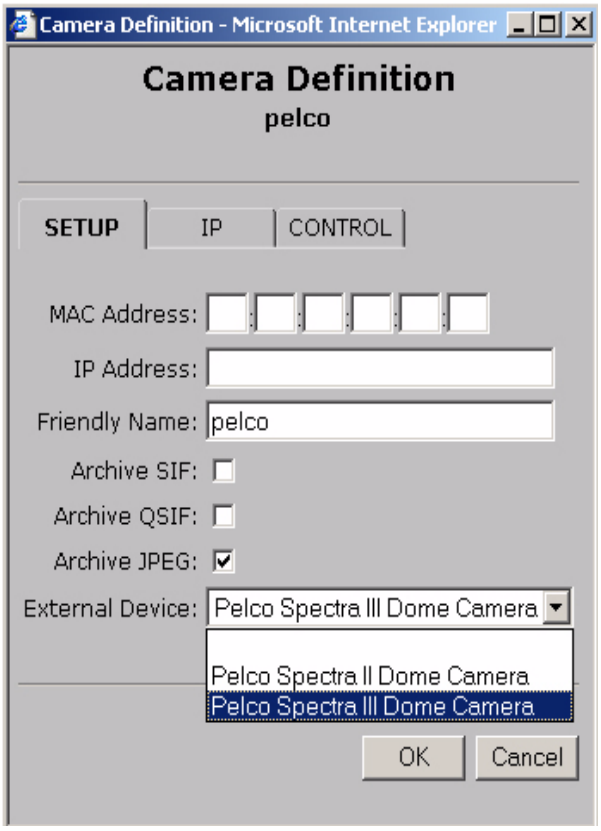

Figure 2-11 Camera Setup Screen

Verification

Using the SiteWatch application, drag and drop the camera icon from the map to one of the display windows. Verify that you see video. Open that camera's controls. Verify that the following controls appear on the screen. Using the camera controls, test the pan/tilt and zoom functions of the Pelco Spectra device (*Figure 2-12*).

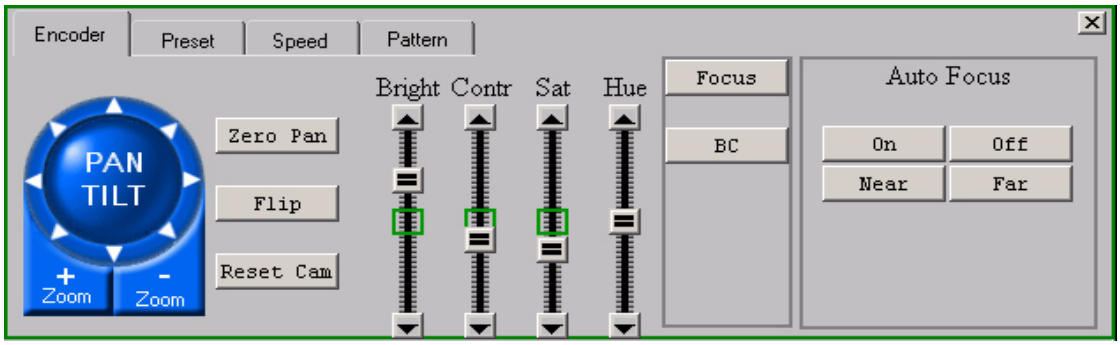

Figure 2-12 Camera Control Screen

APPENDIX A

Customer Supplied Equipment

The following equipment and tools are required.

1. **Equipment**
   a. **Pelco Spectra II or III pendant or dome camera.**
   b. **Cabling to connect the encoder to the IP network.**
   c. **Power to the encoder, either using an e-Watch power inserter or 12 VDC adapter.**
   d. **Power to the dome is 24VAC, 40vA for indoor, 100vA for outdoor models with heater.**
   e. **Cabling to connect the Pelco unit to the encoder:**
      a. **Video balun to convert video output to run on unused pairs of unshielded twisted pair (CAT5), or**
      b. **Coaxial cable**
      c. **CAT5 cable for controls**
2. **Tools**
   a. **#1 Phillips screwdriver.**
   b. **Small common screwdriver.**