Installation Guide for ENC-440

Wireless Outdoor 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.
Plug the equipment into an outlet that is on a different circuit from the television or radio. (That is, make certain the equipment and the television or radio are on circuits controlled by different circuit breakers or fuses.)

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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**
- **Documentation Feedback**
- **Obtaining Assistance**

Purpose

This document provides instruction for the installation of the ENC-440 Wireless Outdoor Encoder. The Installation Guide for ENC-440 provides a parts list and diagrams. It also provides illustrations of the connections and construction required. This document acts as an illustrated guide for hardware installation.

Audience

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

Organization

This guide is organized as shown in the following table

Part	Description
Part 1	'Installation Guide' Contains information on constructing and installing a ENC-440. Diagrams and procedures are included.
Part 2	'Appendix' Contains illustrations and listings for parts included with the ENC-440 as well as parts required by the customer for construction of the ENC-440.

Related Documentation

Refer to the following documents for further information about related e-Watch applications and products:

- **URG-9110-001—SiteWatch™ Situational Awareness System Administration Guide**
- **URG-9135-001—Installation Guide for DOM-1XX**

Conventions

This document uses the following 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:

E-mail your comments to support@e-watch.com

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

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

We appreciate your comments.

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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. You may also 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

Key Features and Benefits

The ENC-440 Camera is an e-Watch® Wireless Outdoor Encoder, capable of full communication with any PC running the ViewWatch™ software.

e-Watch is an enterprise wide surveillance and situational awareness 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).

The comprehensive e-Watch® Situational Awareness System is based on standard networking and Internet technology. Both real-time and archived data may be viewed from 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 data relating to specific events

Components Supplied with the Unit

The unit contains the following components:

- ENC-440 Encoder
- Two Cable Glands

Components Supplied by Customer

Power, mounting hardware and other connections must be supplied by the customer.

For More Information

e-Watch Sales at sales@e-watch.com

e-Watch Technical Support at support@e-watch.com

CHAPTER 2

Bench Setup

Pre-Installation

Before the unit is mounted in its permanent location, certain setup procedures must be done. These bench procedures should be done indoors in a clean dry environment, as opening the unit will be required.

Figure 2-1 Open Unit

Bench Power

Power must be supplied to the unit during setup. The power requirements are 24VAC for the ENC-440. Connect the power lines to the ENC-440 figure 2-2.

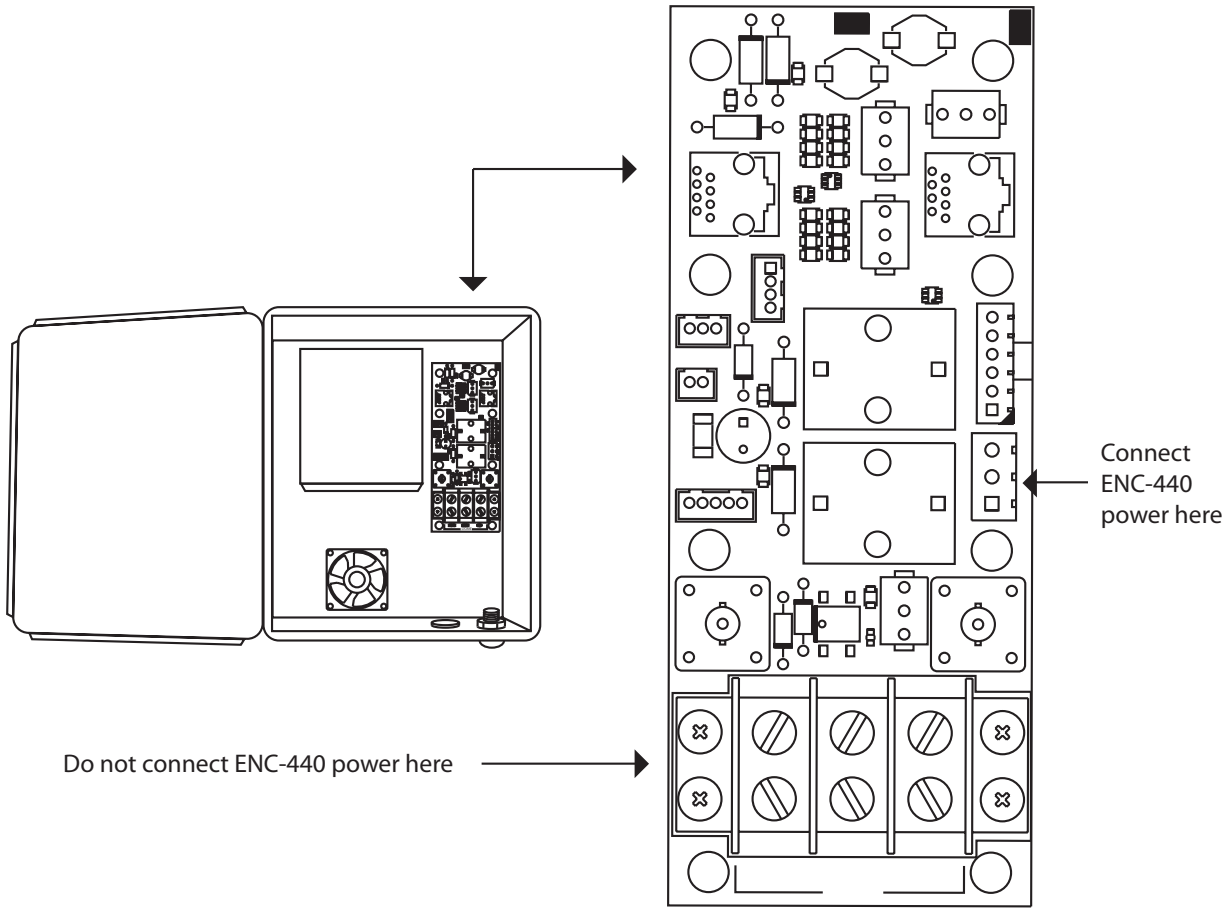

Figure 2-2 Bench Power

IEEE802.11b Configuration

Before the wireless encoder can associate (connect) to an access point, the WIFI settings must be configured. Connect a cat 5 cable to the wired port on the encoder figure 2-3. follow the procedure for setting up a wireless camera in document URG-9110-001.

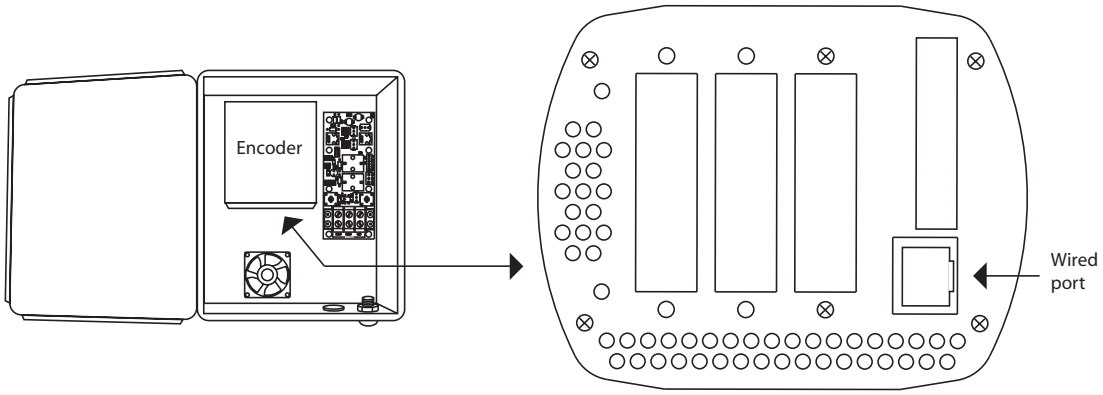

Figure 2-3 Wired Port

After the WIFI setup the device is ready for onsite installation.

CHAPTER 3

ENC-440 Power

Onsite Power

After the unit has been installed in its permanent location, onsite power must be provided. The unit uses and estimated 70vA. Please consult table 3-1 to determine the proper wire gauge.

Table 3-1 Wiring Gauge Based On 70vA Consumed

Gauge	Distance
20	40 Feet (12 meters)
18	64 Feet (19 meters)
16	102 Feet (31 meters)
14	163 Feet (49 meters)
12	258 Feet (78 meters)
10	411 Feet (125 meters)

In order to keep the unit's weatherproof seal, please use the pre-installed cable gland. One extra cable gland is provided; please see "Cable Glands" on page 16 for installation instructions.

1. Run power line thru cable gland
2. Connect the power line to the ENC-440 power connection

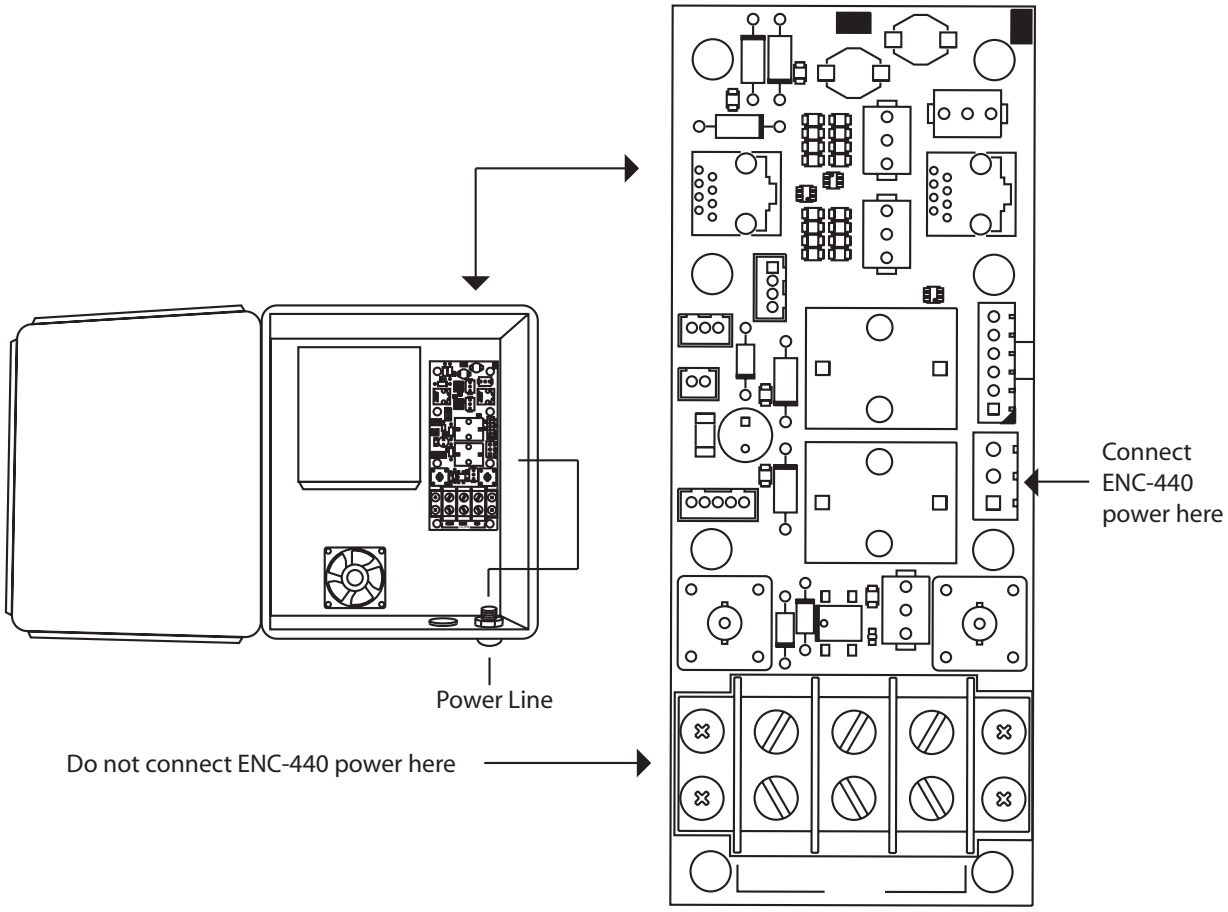

Figure 3-3 ENC-440 Site Power

CHAPTER 4

External Video

Video

The ENC-440 can accept external video from a NTSC video source. Connect the coaxial cable to the video input connector. You may use the same cable gland as the power line if desired.

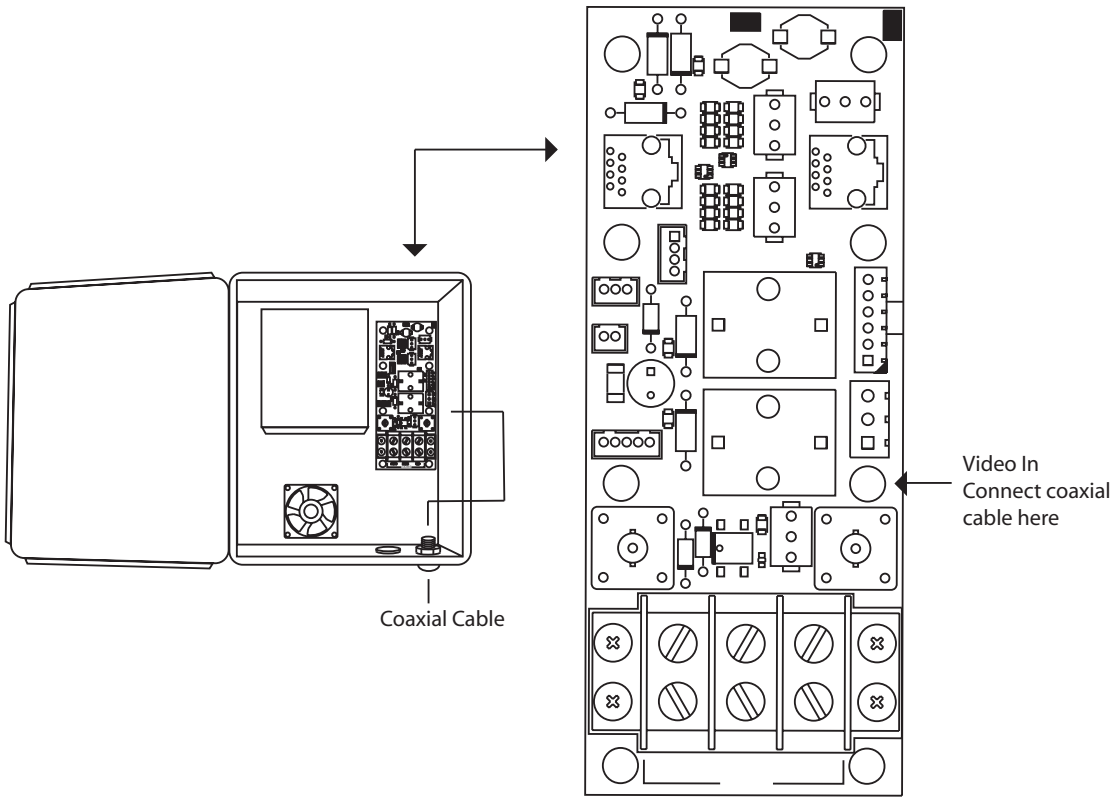

Figure 4-1 Coaxial Connection

CHAPTER 5

Antenna

ENC-440 Antenna

The ENC-440 is a wireless unit. It requires a customer-supplied antenna. Connect the antenna to the antenna connection on the unit.

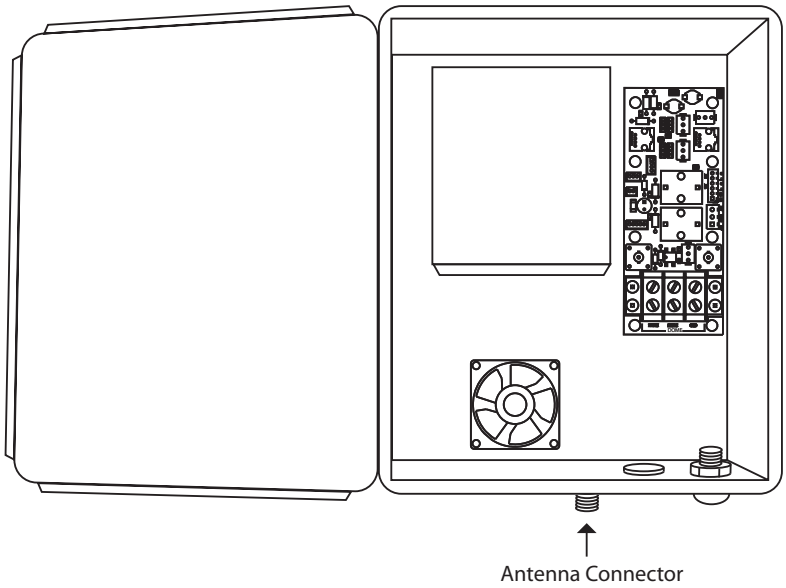

Figure 5-1 Antenna Connector

CHAPTER 6

DOM-1XX

DOM Connection

The ENC-440 is capable of controlling a compatible DOM-1XX. The DOM-1XX series include the Pelco® Spectra 3 series of domes. When connected the ENC-440 can allow full control of the DOM-1XX from the ViewWatch™ station.

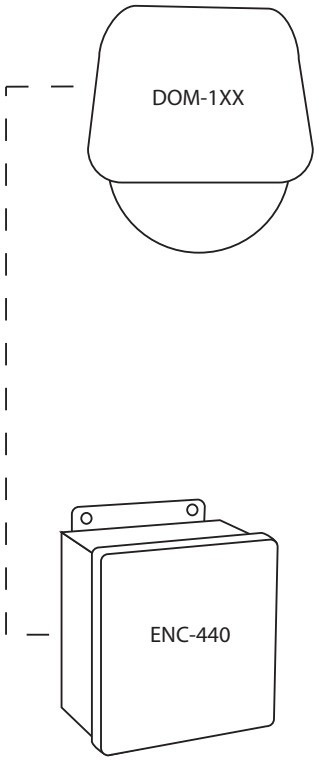

Figure 6-1 ENC-440 to DOM-1XX

Comms connection

Connect the CAT5 cable to the DOM comms connection on the ENC-440, see document URG-9135-001 for details.

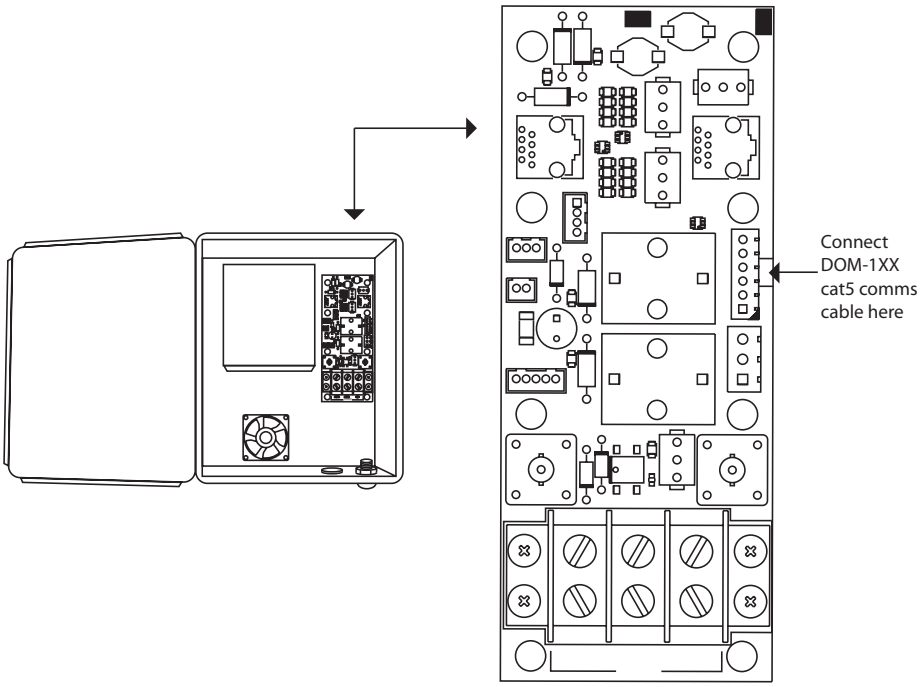

Figure 6-2 DOM-1XX Connection

Video

Connect the video from the DOM-1XX to the video input on the ENC-440 see “External Video” on page 8

Power

For optional convenience you may use the ENC-440 to bridge the power from the power supply to the DOM-1XX.

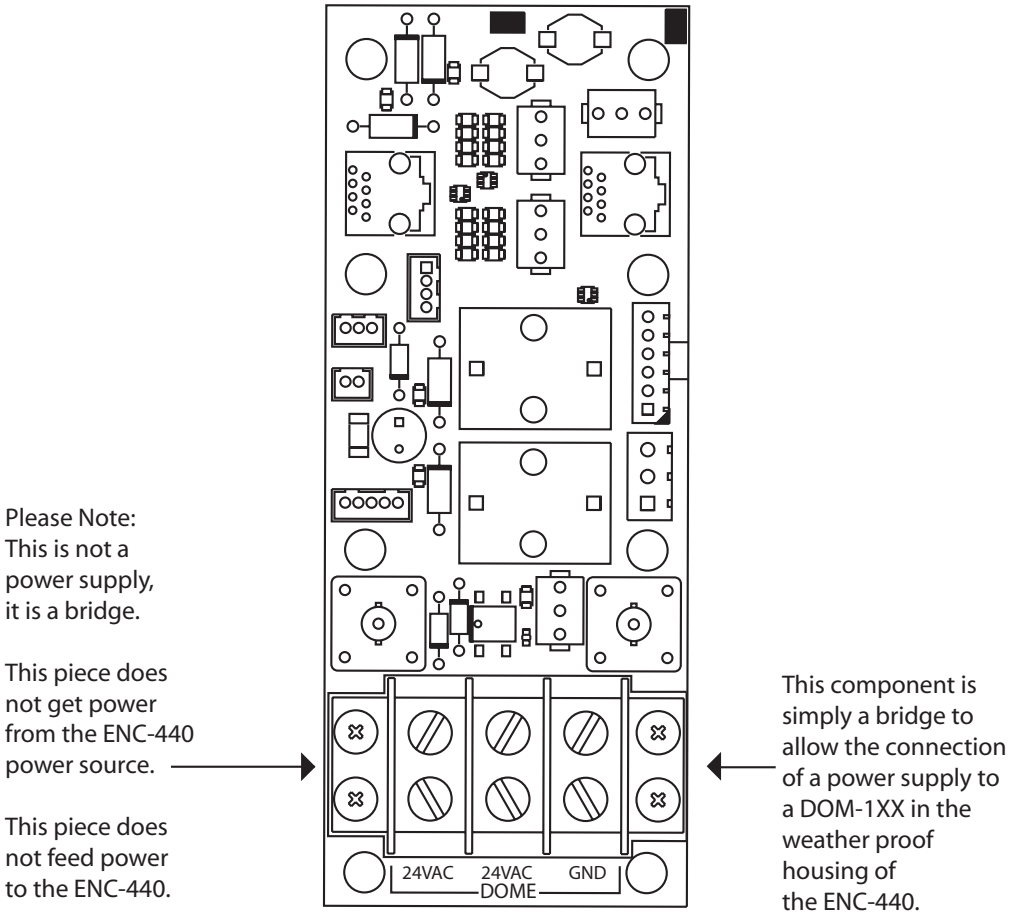

Figure 6-3 DOM-1XX Power Bridge

APPENDIX A

Completed System

The ENC-440 Outdoor Wireless Encoder should appear similar to Figure A-1 below when complete.

Figure A-1. ENC-440 complete

APPENDIX B

Parts List

The following parts are supplied with the ENC-440 Outdoor Wireless Encoder

A. ENC-440
B. Cable Gland

A. ENC-440

B. Cable Gland

APPENDIX C

Customer Supplied Equipment

The following equipment and tools are required. The customer is assumed to have already purchased an e-Watch camera. Power supply and mounting brackets are also required from the customer to complete installation.

1. **Equipment**
   a. **e-Watch CAM-440 Camera**
   b. **24 VAC (1.5 amp) Power Supply -** Examples:
      •Pelco TF900 Indoor Power Supply
      •Pelco WSC1-4 Outdoor Power Supply
   c. **Any required mounting brackets**

2. **Tools**
   a. **#1 Philips Screwdriver or T-9 Torx Driver**
   b. **10 mm Wrench**

APPENDIX D

Cable Glands

Installation

If available the cable glands should always be used. They provide a weatherproof seal to help protect the unit. To install the glands, follow these steps.

1. Bolt in the gland from the outside of the housing.
2. Bolt in the nut to the gland from the inside of the housing
3. Once you have run the wiring thru the gland, tighten the end on the gland to squeeze the inner gland and create a weatherproof seal.