



e-Watch®

Installation Guide for KIT-303 Indoor Pan/Tilt Kit

e-Watch Corporation

7800 IH-10 West, Suite 720
San Antonio, TX 78230
USA

www.e-watch.com
tel: 210 349-2000
fax: 210 341-1020

READ THIS NOTICE

THE SPECIFICATIONS AND INFORMATION REGARDING THE PRODUCTS IN THIS MANUAL ARE SUBJECT TO CHANGE WITHOUT NOTICE. ALL STATEMENTS, INFORMATION, AND RECOMMENDATIONS IN THIS MANUAL ARE BELIEVED TO BE ACCURATE BUT ARE PRESENTED WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. USERS MUST TAKE FULL RESPONSIBILITY FOR THEIR APPLICATION OF ANY PRODUCTS.

THE SOFTWARE LICENSE AND LIMITED WARRANTY FOR THE ACCOMPANYING PRODUCT ARE SET FORTH IN THE INFORMATION PACKET THAT SHIPPED WITH THE PRODUCT AND ARE INCORPORATED HEREIN BY THIS REFERENCE. IF YOU ARE UNABLE TO LOCATE THE SOFTWARE LICENSE OR LIMITED WARRANTY, CONTACT YOUR E-WATCH REPRESENTATIVE FOR A COPY. NOTWITHSTANDING ANY OTHER WARRANTY HEREIN, ALL DOCUMENT FILES AND SOFTWARE OF THESE SUPPLIERS ARE PROVIDED 'AS IS' WITH ALL FAULTS. E-WATCH AND ITS SUPPLIERS DISCLAIM ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, THOSE OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OR ARISING FROM A COURSE OF DEALING, USAGE, OR TRADE PRACTICE.

IN NO EVENT SHALL E-WATCH OR ITS SUPPLIERS BE LIABLE FOR ANY INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES, INCLUDING, WITHOUT LIMITATION, LOST PROFITS OR LOSS OR DAMAGE TO DATA ARISING OUT OF THE USE OR INABILITY TO USE THIS MANUAL, EVEN IF E-WATCH OR ITS SUPPLIERS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

UNITED STATES FEDERAL COMMUNICATIONS COMMISSION NOTICE

The following information is for FCC compliance of Class A devices: This equipment has been tested and found to comply with the limits for Class A digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio-frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case users will be required to correct the interference at their own expense.

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.)

Modifications to this product not authorized by e-Watch could void the FCC approval and negate your authority to operate the product.

COPYRIGHT AND TRADEMARK NOTICE

Copyright© 2003-2006 e-Watch Corporation. All rights reserved. e-Watch is a registered trademark of e-Watch Corporation. ViewWatch, DecisionWatch, EventWatch, SiteWatch, MotionWatch, GateWatch, AirWatch, PocketWatch, PeopleWatch, BankWatch, ClassWatch, ObjectWatch, WatchLink, Activity Gated Storage, and Gigapixel are trademarks of e-Watch Corporation. Any other trademarks mentioned in this document are the property of their respective owners.

The use of the word partner does not imply a partnership relationship between e-Watch and any other company.

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.

C O N T E N T S

Preface

- Purpose
- Audience
- Organization
- Conventions
- Obtaining Documents
- Documentation Feedback
- Obtaining Assistance

PART 1

CHAPTER 1

CHAPTER 2

CHAPTER 3

PART 2

APPENDIX A

APPENDIX B

APPENDIX C

Installation Guide

Introduction 1

- Key Features and Benefits 1
- Components Supplied with Kit 1
- Components Supplied by Customer 2
- For More Information 2

Pan/Tilt Card Installation for e-Watch Camera 3

- Overview 3
- Installing the Card 3

CAMERA INSTALLATION ON INDOOR PAN/TILT KIT 8

- Overview 8
- Installing the Camera 8

Appendices

Completed System 11

Parts List 12

Customer Supplied Equipment 13

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 KIT-303 Indoor Pan/Tilt Kit. This document includes the procedures for installing the indoor Pan/Tilt card in the camera housing as well as mounting the camera onto the Pan/Tilt unit. The Installation Guide for KIT-303 Indoor Pan/Tilt Kit provides a parts list and diagrams for the construction of the power supply and cable connections. 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 kit.

Organization

This guide is organized as shown in the following table

Part	Description
Part 1	‘Installation Guide’ Contains information on constructing and installing a KIT-303 Indoor Pan/Tilt Kit. Diagrams and procedures are included.
Part 2	‘Appendix’ Contains illustrations and listings for parts included with the kit as well as parts required by the customer for construction of the KIT-303 Indoor Pan/Tilt Kit.

Related Documentation

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

- **URG-9109-001—e-Watch® Camera Installation Guide**
- **URG-9126-001—Switching a CAM or ENC To Legacy PoE**

Conventions

This document uses the following conventions:

CONVENTION	DESCRIPTION
Boldface font	Commands and keywords are in boldface .
<i>Italic</i> font	Arguments for which you supply values are in <i>italics</i> .
[]	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.
<i>Italic</i> screen font	Arguments for which you supply values are in <i>italic</i> 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.

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. 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

Introduction

KIT-303 Indoor Pan/Tilt Kit is a camera mount allowing for pan and tilt control from a ViewWatch™ station. Connection to the camera is required, as well as a power source and mounting hardware for the Pan/Tilt head. Parts are supplied for connecting any current e-Watch camera to the Pan/Tilt Unit.

Key Features and Benefits

The KIT-303 Pan/Tilt Kit provides integrated support for e-Watch cameras and software. It is a self-contained unit for indoor use only. The unit has 350° horizontal motion and 70° vertical motion. The accompanying internal card is designed to fit within any current 3XX e-Watch camera to allow motion control of the Pan/Tilt Unit from 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 Kit

The kit contains the following components:

- **Pan/Tilt Unit** - Main unit powered for vertical and horizontal motion

- **Pan/Tilt Card** - Component card for insertion into the e-Watch camera. Controls the motion of the Pan/Tilt Unit from associated software.
- **Y Cable** - Power and controller cable for connection of outside power supply and Pan/Tilt connection to e-Watch camera.
- **¼ x 20 Cap Screw** - For connecting camera to Pan/Tilt Unit
- **Velcro Cable Restraint** - Strap used in securing wiring on Pan/Tilt Unit

Components Supplied by Customer

The kit contains all necessary components for attachment to any e-Watch camera; however, power, mounting hardware and other connections must be supplied by the customer.

The customer should have access to a Philips screwdriver or T9 torx screwdriver and a 10mm wrench to complete the installation.

For More Information

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

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

Pan/Tilt Card Installation for e-Watch Camera

Overview

These instructions use the e-Watch CAM-301 Camera (see figure 2-1) for illustration purposes; however, these instructions will work with any e-Watch CAM-3XX camera model. The card is to be installed inside the e-Watch camera, which requires opening and modifying the camera hardware. Care should be taken to adequately ground all tools and persons. Electrostatic discharge can destroy components. Make sure that all plugs and connections have been disconnected before working on the camera.



Figure 2-1 e-Watch Camera

Parts and tools required:

- **Philips screwdriver or T-9 torx driver**
- **Pan/Tilt card**
- **e-Watch Camera**

Installing the Card

The outdoor pan tilt card can be inserted in any of the three option card slots. For our example we will use the middle slot.

1. Ensure all cables are disconnected from the camera.

2. Remove the four corner screws from the back of the camera with a Philips screwdriver or T-9 torx driver (figure 2-2).

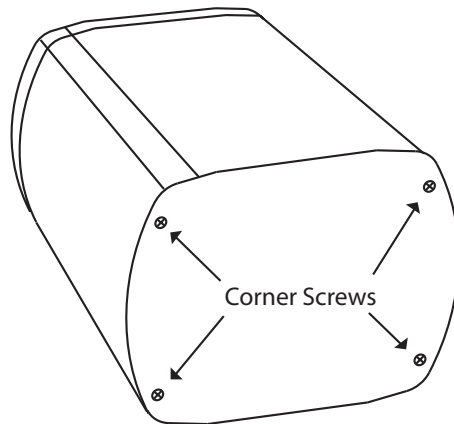


Figure 2-2 Back Cover Plate Screws

3. Remove the two screws holding the center cover plate with a Philips screwdriver or T-9 torx driver (figure 2-3).

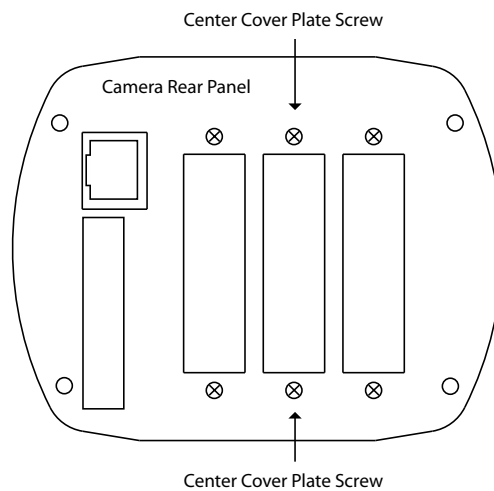


Figure 2-3 Center Cover Plate Screws

4. Place the Pan / Tilt option card in the housing with the 20-pin connector toward the camera option card connectors (figure 2-4).

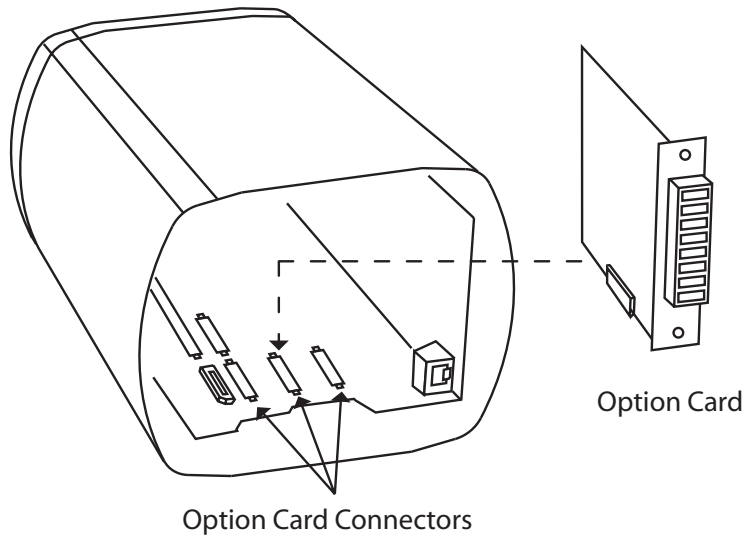


Figure 2-4 Back of Camera with Back Plate Removed

5. Insert the 20-pin connector into any of the three possible position connectors as shown in image 2-5.



Figure 2-5 Open Camera with possible connectors

6. Place the cover over the back of the camera and center.
7. Attach the option card to the rear panel with the two screws removed from the Center Cover Plate (figure 2-6).

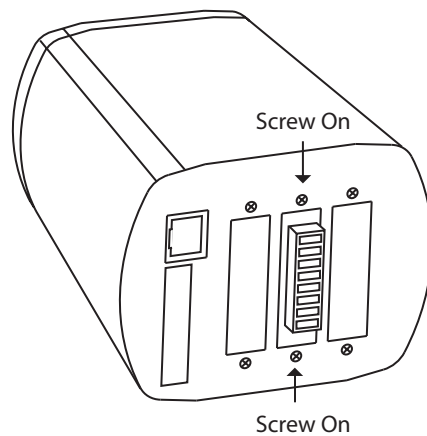
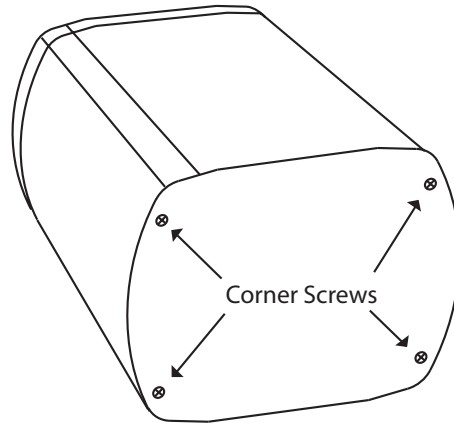


Figure 2-6 Camera Back with Cover Plate Screws

8. Replace the four screws holding the Camera Back (figure 2-7).



Rear Of Camera

Figure 2-7 Camera Back with Back Cover Screws

The parts of the camera should fit neatly together. Do not force parts together, as this can break important connections and delicate parts.

Camera Installation on Indoor Pan/Tilt Kit

Overview

These instructions use the e-Watch® CAM-301 Camera (see figure 3-1) for illustration purposes; however, these instructions will work with any other CAM-3XX model e-Watch camera. The power supply plug will need to be spliced to the customer supplied power supply. Care should be taken to adequately ground all tools and persons. Electrostatic discharge can destroy components. Make sure that all plugs and connections have been disconnected before working on the camera.



Figure 3-1 e-Watch Camera

Installing the Camera

1. Place the camera on the Pan/ Tilt unit. Align the hole in the Pan / Tilt unit top with the $\frac{1}{4}$ x 20 thread mount in the bottom of the camera and

attach the camera to the Pan / Tilt unit with the $\frac{1}{4}$ x 20 cap screw provided (figure 3-2). Avoid over tightening the cap screw.



Figure 3-2 Cap Screw Connection - 3/8" Max Protrusion

2. Attach the twelve-pin block plug end of the "Y" cable to the twelve pin connector on the camera's Pan /Tilt option card (figure 3-3).
3. Attach the six-pin connector on the Pan/Tilt unit to the mating connector on the "Y" cable (figure 3-3).
4. Provide power to the Pan/Tilt unit using the power source end of the Y-cable (figure 3-3) connected to a 24 VAC (500mA) power supply (not provided).
5. To power the e-Watch camera or encoder you can either provide 24VAC power or provide in-line power via CAT5. Please see document URG-9126-001 for more detail.

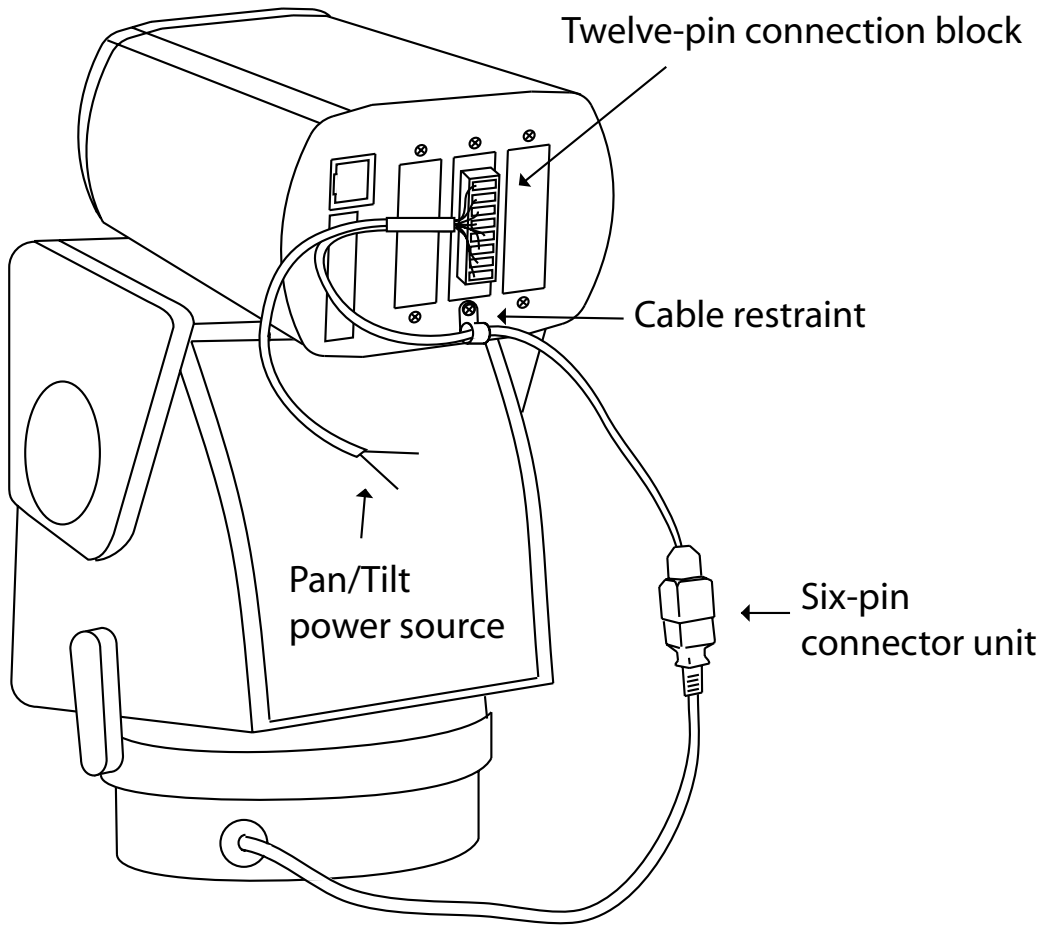


Figure 3-3 Cable Connections

Completed System

The KIT-303 Indoor Pan/Tilt Kit should appear as in Figure A-1 below when complete.

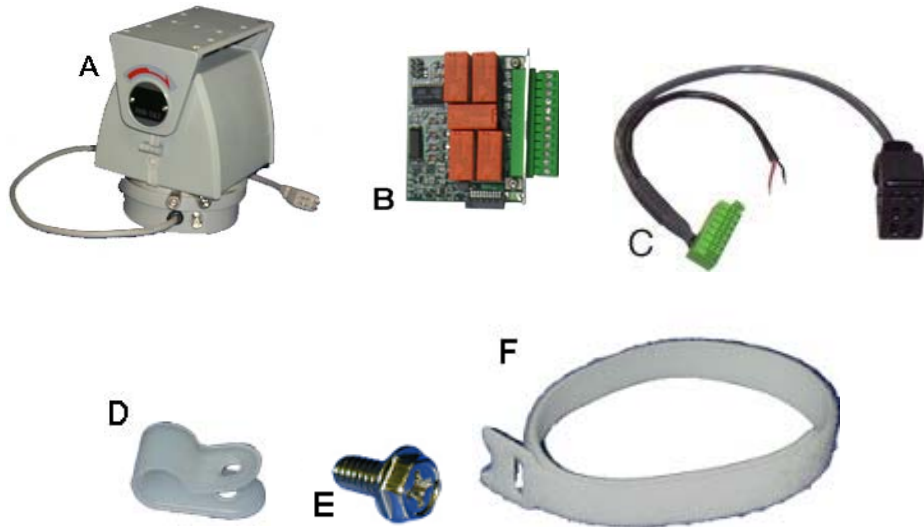


Figure A-1. KIT-303 Indoor Pan/Tilt Kit complete

Parts List

The following parts are supplied with the KIT-303 Indoor Pan/Tilt Kit.

- A. Pan / Tilt Unit
- B. Pan / Tilt Card
- C. "Y" Cable
- D. Cable Restraint
- E. ¼ x 20 Cap Screw
- F. Velcro Wire Strap



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 Camera - CAM-3XX**
- b. **24 VAC (500mA) Power Supply** - May be purchased from Radio Shack or any other electronic supply store
- c. **Mounting Bracket for Pan/Tilt Unit**

2. Tools

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