INSTALLATION MANUAL

ES3012 Series Esprit®

C306M-K (4/05)

CONTENTS

LIST OF ILLUSTRATIONS

LIST OF TABLES

IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
6. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
7. Only use attachments/accessories specified by the manufacturer.
8. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
9. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
10. Installation should be done only by qualified personnel and conform to all local codes.
11. Unless the unit is specifically marked as a NEMA Type 3, 3R, 3S, 4, 4X, 6, or 6P enclosure, it is designed for indoor use only and it must not be installed where exposed to rain and moisture.
12. Use only installation methods and materials capable of supporting four times the maximum specified load.
13. Use stainless steel hardware to fasten the mount to outdoor surfaces.
14. To prevent damage from water leakage when installing a mount outdoors on a roof or wall, apply sealant around the bolt holes between the mount and mounting surface.

1. AN ALL-POLE MAINS SWITCH with a contact separation of at least 3 mm in each pole shall be incorporated in the electrical installation of the building.
2. A readily accessible disconnect device shall be incorporated in the building installation wiring.
3. **CAUTION:** These servicing instructions are for use by qualified service personnel only. To reduce the risk of electric shock do not perform any servicing other that contained in the operating instructions unless you are qualified to do so.
4. Only use replacement parts recommended by Pelco.
5. After replacement/repair of this unit's electrical components, conduct a resistance measurement between the line and exposed parts to verify the exposed parts have not been connected to the line circuitry.

The product and/or manual may bear the following marks:

This symbol indicates that dangerous voltage constituting a risk of electric shock is present within this unit.

This symbol indicates that there are important operating and maintenance instructions in the literature accompanying this unit.

WARNING: HAZARDOUS MOVING PARTS. KEEP FINGERS AND OTHER BODY PARTS AWAY.

CAUTION:
RISK OF ELECTRIC SHOCK. DO NOT OPEN.

DESCRIPTION

The Esprit® ES3012 Series Integrated Positioning System is available as a basic system or as an ImagePak® camera and lens package. The basic system integrates a pan and tilt, camera enclosure, and receiver (camera and lens not included). The ES3012 ImagePak includes the basic system, plus a camera and lens package.

The ES3012 system uses 24 VAC to operate, with a 24, 120, or 230 VAC power source. The 120 or 230 VAC input is converted to 24 VAC using a transformer selection switch. The operating range is ±15 percent of the input voltage.

Every ES3012 system (basic or ImagePak) has a heater, window defroster, sun shroud, and insulation blanket. The system is constructed of lightweight aluminum and can be used for indoor or outdoor applications.

MODELS

Basic

ES3012-2	Standard Esprit Integrated Positioning System (pan and tilt, enclosure, and receiver), uses 24 VAC input voltage
ES3012-2N	Same as ES3012-2, except supplied with pedestal adapter
ES3012-2W	Same as ES3012-2, except supplied with wall mount
ES3012-5	Same as ES3012-2, except uses 120 or 230 VAC input voltage
ES3012-5N	Same as ES3012-5, except supplied with pedestal adapter
ES3012-5W	Same as ES3012-5, except supplied with wall mount

INSTALLATION

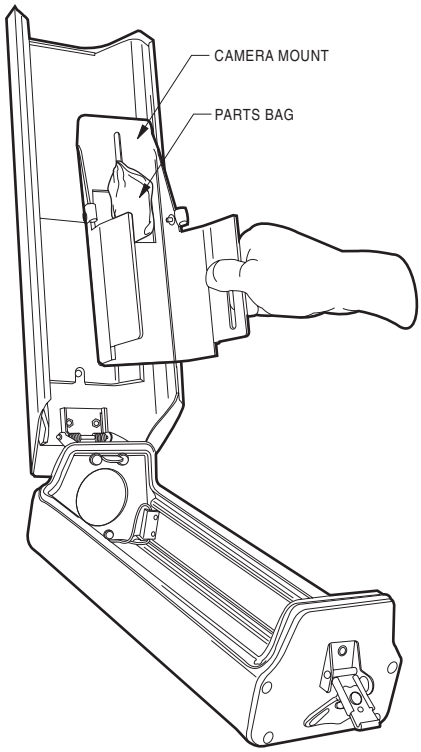
The basic ES3012 system does not include a camera and lens package. Therefore you must install a camera and lens in the enclosure before mounting the pan/tilt to the base of the system.

CAMERA AND LENS INSTALLATION

(Skip this section if you are installing an ES3012 ImagePak camera and lens package. Start with the section on *Pan and Tilt Installation*.)

Maximum dimensions of camera and lens combination, including BNC connector: 2.87 (W) x 3.15 (H) x 12.10 (L) inches (7.28 x 8.00 x 30.73 cm)

1 Unlatch and open the enclosure lid. Remove the camera mount and parts bag.

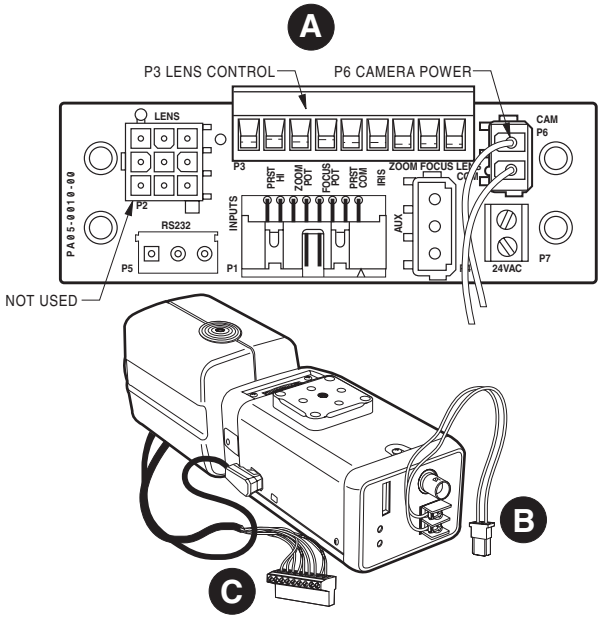


2 Assemble the camera and lens. Attach the power connectors to the camera and lens:

A. Remove the top portion of the P3 and P6 connectors from the PC board.

B. Connect the two wires for camera power (P6) to the power terminals on the camera.

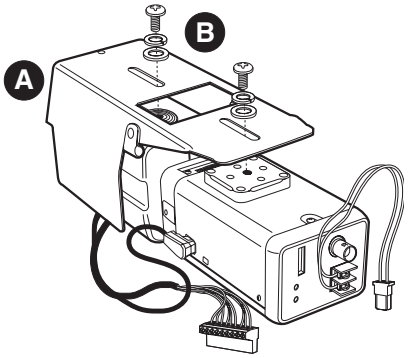
C. Attach the lens control wires from the lens to the P3 connector.



3. Attach the camera and lens to the mount. Extend the lens to the maximum length before positioning the camera and lens.

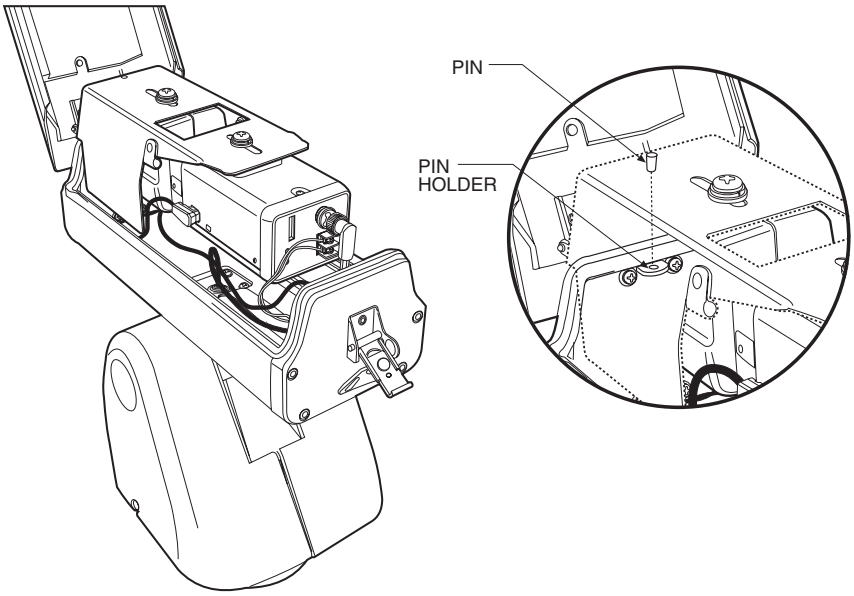
   A. Position the camera and lens so the lens does not extend beyond the end of the mount.

   B. Fasten the camera and lens to the mount with the 1/4-20 Phillips screws, lock washers, and flat washers (supplied).



4. Plug the lens control and camera power connectors into the P3 and P6 receptacles on the PC board. Connect the video coax BNC to the camera.

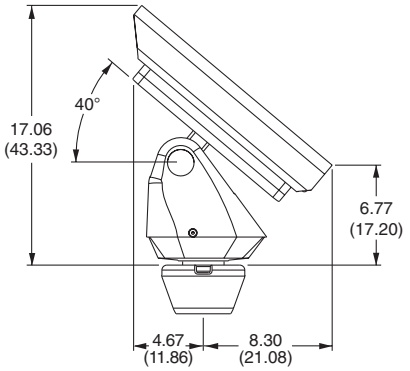
5. Install the camera mount in the enclosure. Insert the pin, on the front of the mount, into the holder on the top of the window bracket. Adjust the camera focus and iris, if necessary. Close and latch the enclosure lid.



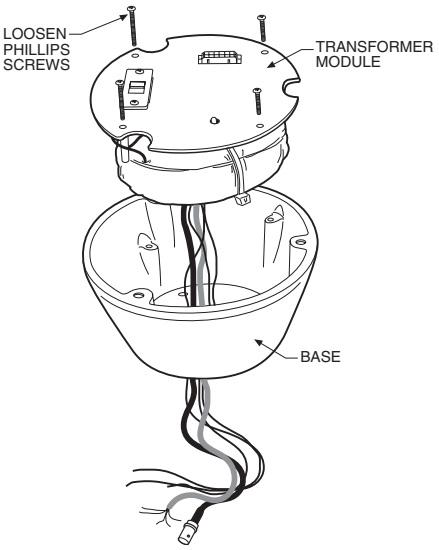
PAN AND TILT INSTALLATION

NOTE: *The illustrations show the ES3012 Esprit mounted to an EWM wall mount.*

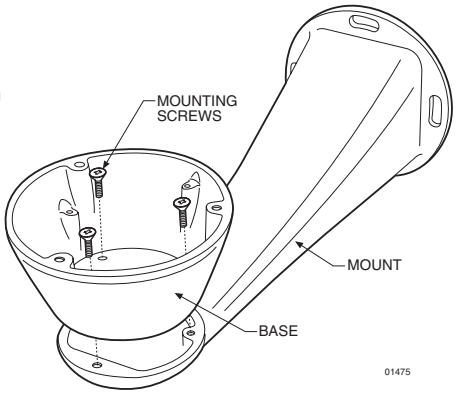
1. When installing the ES3012 Esprit system, allow for sufficient clearance between the top of the unit and overhead obstructions. This will prevent interference when the enclosure is driven to its maximum elevation of 40 degrees.



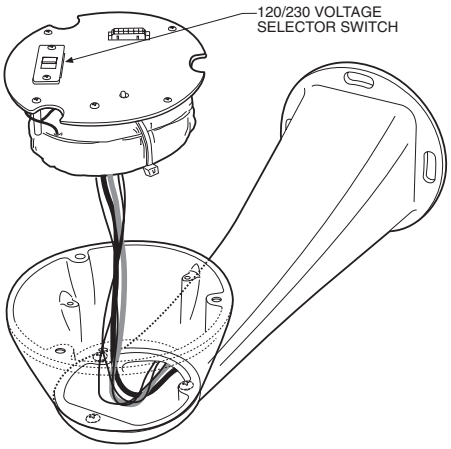
2. Remove the transformer module from the base of the system by loosening the four Phillips screws and lifting the module.



3. Attach the base of the system to an Esprit mount (EWM or EPP) with the three flathead 10-32 x 1/2-inch screws and washers (supplied).



4. Route the wires and cables through the center of the Esprit mount. Reinstall the transformer module into the base. The transformer module can be positioned in the mount base in only one orientation.



5. **ES3012-5 Model Only –** Set the 120/230 voltage selector switch on the transformer to the appropriate voltage.

6. Connect wires and cables.

   a. Connect to power. Use the two supplied clamp connectors to connect the AC line and neutral.

120/230 VAC

Black wire	Input (AC Line)
White wire	AC Neutral
Green wire	Ground

24 VAC

White wire	Input (AC Line)
White wire	AC Neutral
Green wire	Ground

   b. Connect the video coaxial cable to the BNC connector.

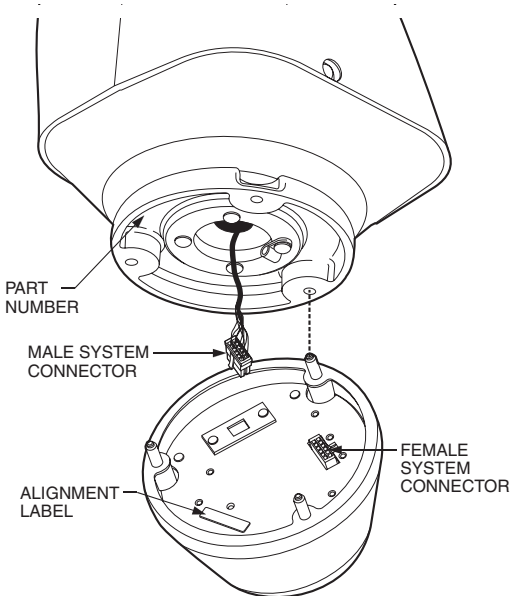
   c. Connect the wiring for a two-wire or four-wire control system. This step does not apply to Coaxitron® control systems.

Green wire	RX-
Red wire	RX+
Black wire	TX-
White wire	TX+

7. Install mount; refer to the installation manual supplied with the mount for instructions.

8. Turn on the power. If the red LED lights, turn off the power and proceed to the next step. If the red LED does not light, refer to the *Troubleshooting* section.

9. Plug the male Esprit system connector, located on the bottom of the pan and tilt, into the female Esprit system connector located on the transformer module. Align the pan and tilt part number with the alignment label of the base and then attach the pan and tilt to the base with three 1/4-20 nuts and washers (supplied).



10. Set the receiver address and system baud rate by configuring DIP switches SW1 and SW2.

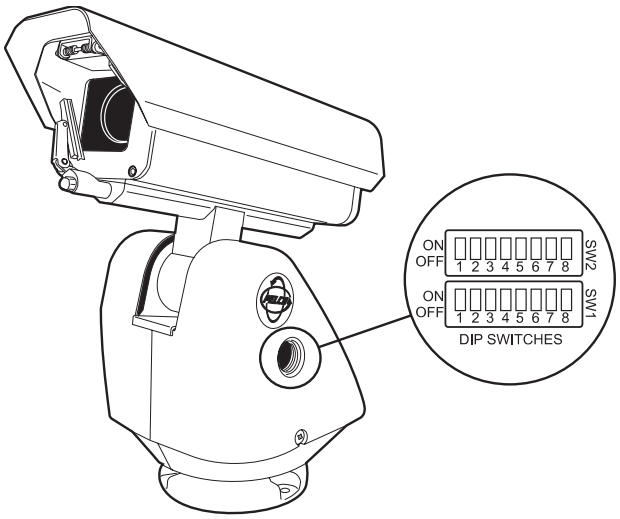
    To set the DIP switches:

    a. Remove the plug from the left cover of the pan and tilt. It is not necessary to remove the pan and tilt cover.

    b. Set the baud rate (SW1) and receiver address (SW2). For switch settings refer to the labels located on the inside lid of the housing or Tables A and B in the *Appendix*.

    c. Replace the plug.

NOTE: *Switch settings have no effect on Coaxitron control signals. The Esprit will sense and automatically select input from Coaxitron control signals in either standard or extended mode.*



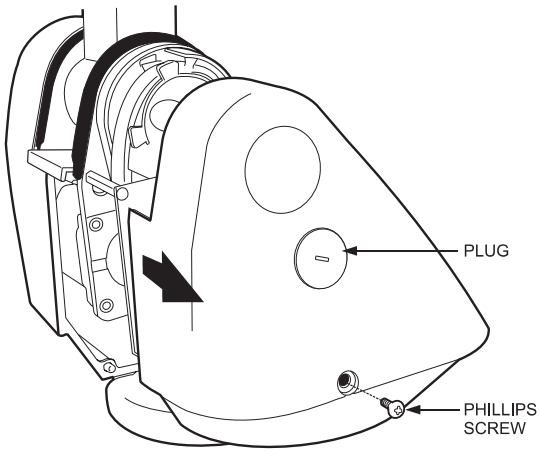
TXB SERIES TRANSLATOR BOARD INSTALLATION (OPTIONAL)

Pelco's TXB Series allows controllers from other companies to communicate with the Esprit system.

To install a TXB Series board, remove the left cover of the pan and tilt. Once the cover is removed, refer to the manual supplied with the translator board to complete the installation.

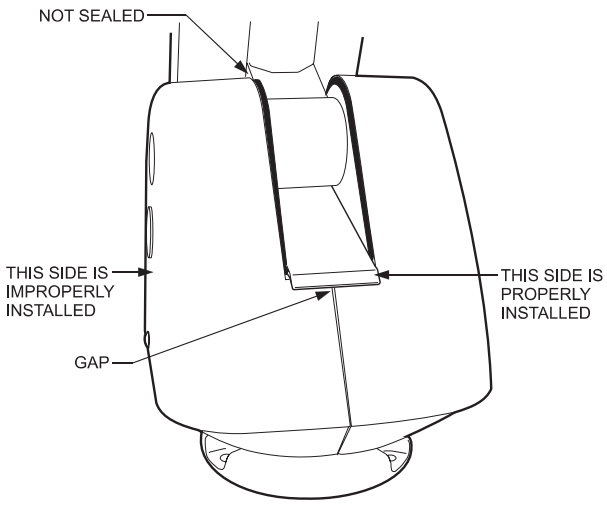
HOW TO REMOVE THE PAN AND TILT COVER

1. Unscrew the Phillips head screw located on the left cover of the pan and tilt.
2. Remove cover and place to the side.



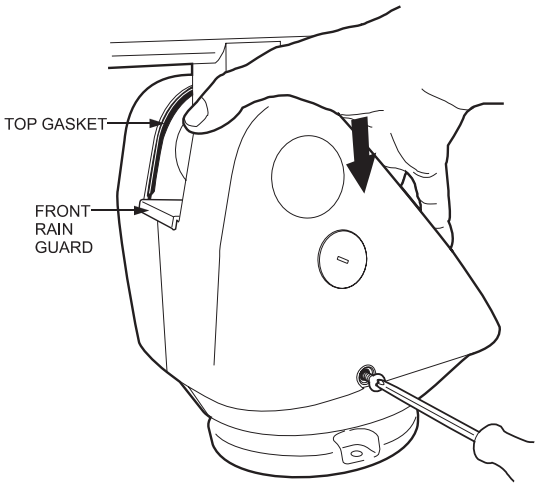
HOW TO REINSTALL THE PAN AND TILT COVER

The pan and tilt covers must be properly seated and have a tight seal all the way around when installed.



To reinstall the pan and tilt cover, do the following:

1. Properly position the cover and slide it into place. The sides of the cover must fit under the front and back rain guards of the pan and tilt, and the top of the cover must seat against the lip of the top gasket.
2. Apply pressure and push the top of the cover down to align the fastener holes.
3. Insert the Phillips head screw and tighten. Tighten until the screw will not turn.



OPERATION

POWER-UP DISPLAY

When the Esprit system is powered up or reset, the selected protocol, revision number, and other information is displayed on the monitor. For example, the screen might show the following information:

PELCO ESPRIT 1.20
CONFIGURE DONE

D Address 1
P Address 2

The information displayed depends on the selected protocol (C, D, or P) and the menu selection for power-up mode. (Refer to the *Power-Up Mode in the Programming* section).

The information remains on the monitor until the dome is moved.

HOW TO OPERATE YOUR ESPRIT INTEGRATED POSITIONING SYSTEM

Operation	How to Control
Pan and Tilt	Move joystick left/right and up/down.
Scanning Stop Scan Random Scan Frame Scan Auto Scan	 Call preset 96. Call preset 97. Call preset 98. Call preset 99.
Presets	Refer to the documentation supplied with the controller.
Patterns	Refer to the documentation supplied with the controller.
Zones	Refer to the *Programming* section and to the documentation supplied with the controller.

For more information refer to *Operating Notes*.

OPERATING NOTES

ENVIRONMENTAL RANGE

The operating temperature ranges from a minimum of -40°F (-40°C) to a maximum of 122°F (50°C) for sustained system operation or 140°F (60°C) absolute maximum. The entire unit can de-ice and be operational in two hours from a temperature of -13°F (-25°C). The thermostatically controlled heater consumes 10 watts and cycles on at 70°F (21°C) and off at 85°F (29°C), while the window defroster runs continuously and consumes 2.5 watts.

PAN AND TILT FUNCTIONS

Controller Type	**Pan** (Capability, 360° Continuous Pan Rotation)**	**Tilt** (Viewing Range, +40° to -90°)***
Fixed speed	Speed determined by controller	Speed determined by controller
*Variable speed *Turbo Mode *Preset Mode	0.5 to 40° per second, depending on joystick position 100° per second 100° per second	0.5 to 20° per second, depending on joystick position Does not affect the tilt speed 30° per second

*50 mph wind speed profile.

** If manual limit stops are set, “Pan Limit” appears on your monitor when a limit stop is reached. This does not apply to scan limit stops.

*** When the system reaches the upper limit, “Tilt Limit” appears on your monitor.

NOTE: *If a preset is set when the system is at the upper tilt limit, the preset label will be overridden by the label "Tilt Limit." The preset labels feature will not function.*

NOTE: *For AMERICAN DYNAMICS controllers with only 32 presets, set switch SW1-5 on the PCB in the ON position. When SW1-5 is ON, preset*

99 becomes 32
98 becomes 31
97 becomes 30
96 becomes 29
95 becomes 28
93 becomes 26
92 becomes 25
91 becomes 24
90 becomes 23

If the limit stops are turned off (refer to the Limit Stops *section), presets 23-26 can be used as regular presets.*

NOTE: *In the operation and programming instructions, sometimes a number in parentheses follows a preset. This second number is for 32-preset mode.*

PAN, SCAN, AND TILT SPEEDS

Pan and scan speeds are adjustable from 3 to 40 degrees per second through the programming menu. The tilt speed is one-half of the pan speed.

LENS FUNCTIONS

Lens zoom, focus, and iris functions are operated from the controller. All lens models have motorized zoom and focus, and direct-drive (no amplifier) auto iris. Some model lenses have preset-positioning capability.

PRESET FUNCTIONS

The Esprit system is capable of going to 64 preset locations, each with a 20-character label. The presets are numbered 1-32 and 35-66. Refer to the documentation for your control system for programming presets.

If you command the pan and tilt to go to an undefined preset, erratic operation may result.

Presets 33 and 34 are fixed commands, meaning that you cannot program them. Preset 33 is the "flip" command, which pans the system 180 degrees. Preset 34 is the "pan zero" command, which pans the system to the factory-determined zero reference point.

RANDOM, FRAME, AND AUTO SCANNING

Select preset 97 (30) to start random scanning. Select preset 98 (31) to activate frame scanning (three seconds of scanning followed by a three-second pause). Select preset 99 (32) to start auto (continuous) scanning. Scan limit stops are controlled by software. Refer to the *Limit Stops* section to program the scan limit stops.

When the system reaches a scan limit stop, it reverses direction. Select preset 96 (29) to stop a scan. Any pan and tilt or lens command also will stop a scan.

ZONES

A zone is a programmed pan area with set boundaries and identifying label. The Esprit system has a maximum of eight zones, each with a 20-character label. Zones can be programmed to blank video when the camera pans into the zone area. If zone labels are turned off, the system displays the message, VIDEO BLANK, to indicate the video is blanked and not failing. (Refer to *Zone Blank* in the *Programming* section for instructions.)

PATTERNS

The Esprit system can do either one full pattern (1.5, 3, or 6 minutes long) or two half patterns (.75, 1.5, or 3 minutes long). This pattern can consist of any standard pan and tilt or lens command. Presets, flip and turbo are not allowed in a pattern. Zones can be enabled while running a pattern. Refer to the documentation for your control system to program and run patterns.

PARK

If the Esprit system does not receive any commands for a specified period of time (refer to the *Park Time Minutes* section), the system will go to preset 1 and park. If the time specified is zero, or if preset 1 has not been programmed, the system will not park.

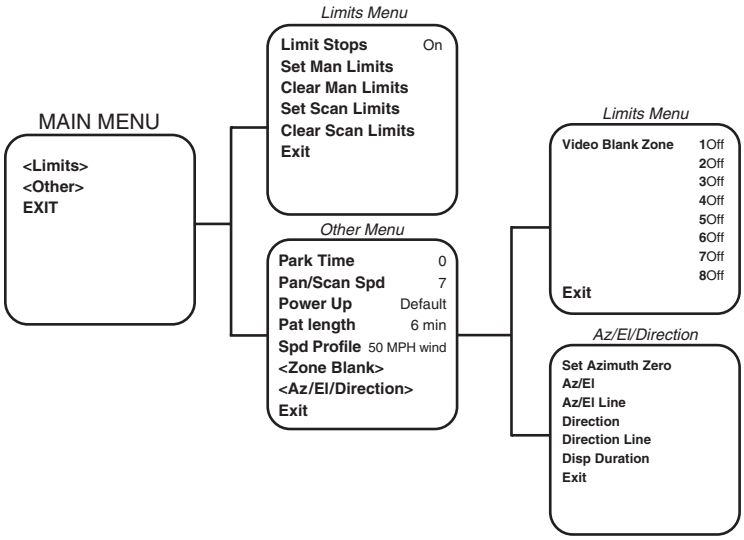
PROGRAMMING

ESPRIT MENUS

To access the main menu, program preset 95.

To make selections in the main menu, use the following controls:

Joystick: Move up or down to position cursor or to toggle between selections.
Iris Open: Enter.
Iris Close: Cancel.



For detailed programming instructions, refer to the sections on the following pages. Menu items are listed alphabetically.

PRESETS

The following presets are reserved for special functions.

Preset	Function
1	Park
33	Flip command
34	Pan zero command
90-91	Manual limit stops
92-93	Scan limit stops
95	Select camera programming menu
96	Stop scanning
97	Random scanning
98	Frame scanning
99	Auto scanning

ACCESSING MAIN MENU (PRESET 95)

You can call up the main menu on your monitor by programming (setting or creating) preset 95 (28 if in 32-preset mode).

Programming preset 95 for Pelco's controllers varies according to the type of controller you are using. Instructions for programming preset 95 are given below for various Pelco controllers.

CM6700

1. Enter the number of the camera and press the CAM key.
2. Enter 95 and hold the PRESET key for two seconds.
3. In the Edit Preset menu, arrow to SET and press the ACK key. The main menu appears.

KBD200/KBD300/KBD300V (Direct Mode Only)

1. Enter 95.
2. Hold the PRESET key (approximately 5 seconds) until the main menu appears on the screen.

CM8500

1. Enter the number of the camera and press the CAM key.
2. Highlight PRESET in the Camera menu and hold down the joystick button until the Set Presets prompt appears.
3. Enter 95 and press the PRESET key. The text editor appears. Select ENTER and the main menu appears.

CM9500

1. Enter the number of the camera and press the CAM key. The Main menu appears.
2. Highlight SETUP in the Main menu and press the SELECT key.
3. Highlight CAM in the Setup menu and press the SELECT key.
4. Highlight PRESET in the Camera menu and press the SELECT key.
5. Enter 95 and press the F1 key. The main menu appears.

CM9750

1. Turn the KEY SWITCH to the ON position.
2. Press the PROG key. PROGRAM appears on the LCD display.
3. Press the PRES key. The PRESET prompt appears.
4. Enter 95 and press the ENTER key. The main menu appears.
5. Turn the KEY SWITCH to the OFF position.

CM9740/CM9760/CM9770

1. Press the ESCAPE key to open the Main menu. Select DEF. The Define Submenu appears.
2. Enter your four-digit PIN *if this is your first time entering this mode*.
3. Enter 95 and select PRST. The main menu appears on the monitor.
4. Select the Quit icon to return to the default menu.

KBD4000/KBD4002/KBD4000V

1. Press the SPOT MONITOR key.
2. Enter 95, then hold the PRESET key (approximately 5 seconds) until the main menu appears on the screen.

MPT9500

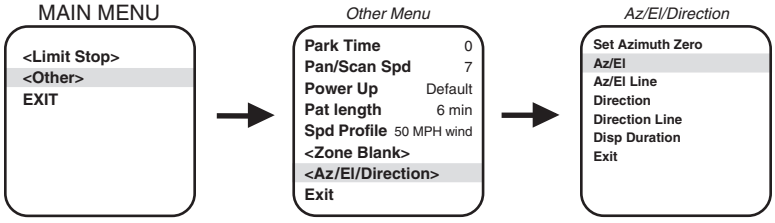
Standard Coaxitron Mode

1. Enter 95 and press the PRESET SET key.
2. Position the asterisk in the YES row and press the F1 key. The main menu appears.

Extended Coaxitron or RS-485 Mode

1. Enter 95 and press the PRESET SET key.
2. Press the F2 key. The main menu appears.

AZ/EL



Az/El programs the horizontal display position of the Azimuth[1]/Elevation[2] label.

The following settings are available for the Az/El label:

Off – Label is not displayed.
Left (default) – Label is displayed on the left-hand side of the screen.
Center – Label is displayed in the center of the screen.
Right – Label is displayed on the right-hand side of the screen.

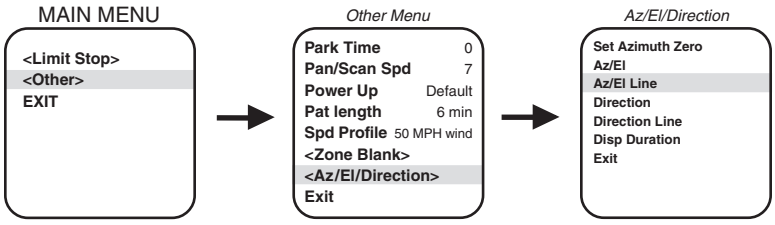
NOTE: *Az/El display is not available while you are programming or running a pattern.*

To program the horizontal label position for Az/El:

1. Program preset 95 (28). The main menu appears.
2. Position the cursor (>) beside Other.
3. Press the Iris Open button to enter the Other menu.
4. Position the cursor (>) beside Az/El/Direction.
5. Press the Iris Open button to enter the Az/El/Direction menu.
6. Position the cursor (>) beside Az/El.
7. Press the Iris Open button. The cursor moves to the right.
8. Move the joystick up or down to view the available selections.
9. SELECT – Press the Iris Open button to make a selection.
   CANCEL – Press the Iris Close button to cancel selection.

[1] Azimuth is the pan angle from 0° to 359°.
[2] Elevation is the tilt position from 33° to -83°.

AZ/EL LINE



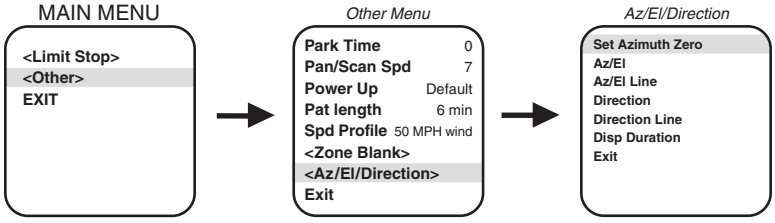
Az/El Line controls the vertical display position of the Azimuth/Elevation label. The label may be displayed on lines 3 through 10. Line 3 is the third line from the top of the screen and line 10 is located at the bottom of the screen. Line 10 is the default setting.

NOTE: *Az/El display is not available while you are programming or running a pattern.*

To program the vertical label position for Az/El:

1. Program preset 95 (28). The main menu appears.
2. Position the cursor (>) beside Other.
3. Press the Iris Open button to enter the Other menu.
4. Position the cursor (>) beside Az/El/Direction.
5. Press the Iris Open button to enter the Az/El/Direction menu.
6. Position the cursor (>) beside Az/El Line.
7. Press the Iris Open button. The cursor moves to the right.
8. Move the joystick up or down to view the available selections.
9. SELECT – Press the Iris Open button to make a selection.
   CANCEL – Press the Iris Close button to cancel a selection.

AZIMUTH ZERO

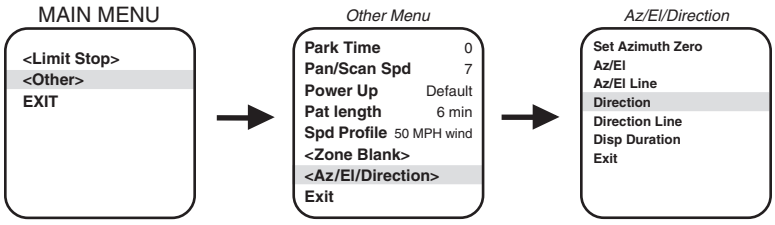


Azimuth is the pan angle from 0° to 359°. Azimuth zero is the programmed 0° point that is normally set to magnetic north. Once programmed, on-screen pan position (azimuth) and compass readings are based on the set azimuth zero point.

To set azimuth zero:

1. Program preset 95 (28). The main menu appears.
2. Position the cursor (>) beside Other.
3. Press the Iris Open button to enter the Other menu.
4. Position the cursor (>) beside Az/El/Direction.
5. Press the Iris Open button to enter the Az/El/Direction menu.
6. Position the cursor (>) beside Set Azimuth Zero.
7. Press the Iris Open button. The programming menu for Set Azimuth Zero appears on the monitor.
8. Use the joystick to pan the Esprit unit to the desired azimuth zero (0° point) position.
9. Press the Iris Open button to set the azimuth zero position.

DIRECTION



Direction programs the horizontal display position of the Direction label (N, NW, NE, …).

The following settings are available for the Direction label:

Off – Label is not displayed.
Left – Label is displayed on the left-hand side of the screen.
Center – Label is displayed in the center of the screen.
Right (default) – Label is displayed on the right-hand side of the screen.

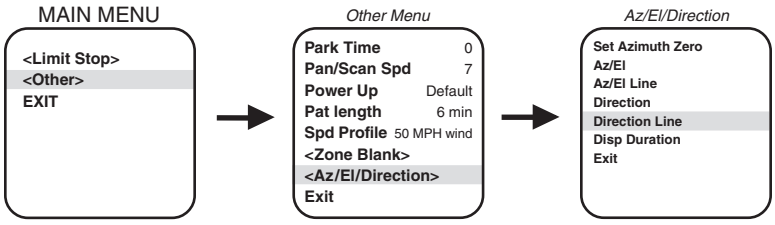
NOTE: *For direction to be accurate, the azimuth zero must be set to magnetic north.*

NOTE: *Direction display is not available while you are programmming or running a pattern.*

To program the horizontal label position for Direction:

1. Program preset 95 (28). The main menu appears.
2. Position the cursor (>) beside Other.
3. Press the Iris Open button to enter the Other menu.
4. Position the cursor (>) beside Az/El/Direction.
5. Press the Iris Open button to enter the Az/El/Direction menu.
6. Position the cursor (>) beside Direction.
7. Press the Iris Open button. The cursor moves to the right.
8. Move the joystick up or down to view the available selections.
9. SELECT – Press the Iris Open button to make a selection.
   CANCEL – Press the Iris Close button to cancel a selection.

DIRECTION LINE



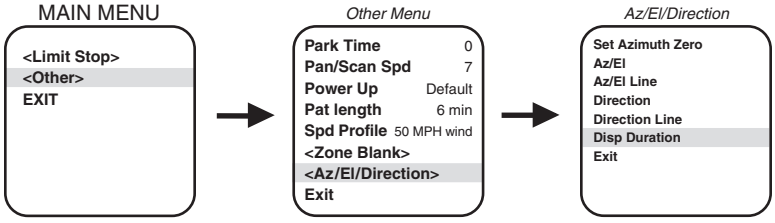
Direction Line controls the vertical display position of the Direction label. The label may be displayed on lines 3 through 10. Line 3 is the third line from the top of the screen and line 10 is located at the bottom of the screen. Line 10 is the default setting.

NOTE: *Direction display is not available while you are programming or running a pattern.*

To program the vertical label position for Direction:

1. Program preset 95 (28). The main menu appears.
2. Position the cursor (>) beside Other.
3. Press the Iris Open button to enter the Other menu.
4. Position the cursor (>) beside Az/El/Direction.
5. Press the Iris Open button to enter the Az/El/Direction menu.
6. Position the cursor (>) beside Direction Line.
7. Press the Iris Open button. The cursor moves to the right.
8. Move the joystick up or down to view the available selections.
9. SELECT – Press the Iris Open button to make a selection.
   CANCEL – Press the Iris Close button to cancel selection.

DISPLAY DURATION



Display Duration programs the duration the Az/El, Direction, and Zoom labels are displayed on the monitor. The available settings for display duration include the following:

CONSTANT - The label is displayed continuously.
2 SECONDS (default) - The label is displayed for 2 seconds after PTZ functions end.
5 SECONDS - The label is displayed for 5 seconds after PTZ functions end.
10 SECONDS - The label is displayed for 10 seconds after PTZ functions end.

To program the display duration for the Az/El, Direction, and Zoom labels:

1. Program preset 95 (28). The main menu appears.
2. Position the cursor (>) beside Other.
3. Press the Iris Open button to enter the Other menu.
4. Position the cursor (>) beside Az/El/Direction.
5. Press the Iris Open button to enter the Az/El/Direction menu.
6. Position the cursor (>) beside Disp Duration.
7. Press the Iris Open button. The cursor moves to the right.
8. Move the joystick up or down to view the available selections.
9. SELECT – Press the Iris Open button to make a selection.
   CANCEL – Press the Iris Close button to cancel selection.

LIMIT STOPS

TURNING LIMIT STOPS ON OR OFF

To change the limit stop mode:

1. Program preset 95 (28). The main menu appears.
2. Position the cursor (>) beside Limits.
3. Press the Iris Open button to enter the Limits menu.
4. Position the cursor (>) beside Limit Stops.
5. Press the Iris Open button. The cursor moves to the right beside the word On or Off.
6. Move the joystick up or down to toggle between On and Off.
7. SELECT - Press the Iris Open button on your keyboard to select your choice.
   CANCEL - Press the Iris Close button if you do not want to change the setting.

PROGRAMMING LIMIT STOPS

Manual Limit Stops

When manual limit stops are set, pan operation (using a joystick or pan/tilt keys) stops when a limit stop is reached. The manual limit stops can be set in one of two ways:

At the controller by programming presets 90 (23) and 91 (24)
or
At the controller by programming the Limit Stops menu

PRESETS

Refer to the documentation for your control system for programming presets, and then do the following:

NOTE: *Programming preset 90 (23) disables the manual limit stops until preset 91 (24) is set. Preset 90 (23) is the left manual limit and preset 91 (24) is the right manual limit.*

1. Make sure limit stops are turned ON, and then exit the menu.
2. Push the joystick left until you reach the limit you want the camera to go to on the left.
3. Program preset 90 (23).
4. Push the joystick right to the limit you want the camera to go to on the right.
5. Program preset 91 (24).

Setting presets 90 (23) and 91 (24) to the same point disables manual limit stops.

LIMIT STOPS MENU

The manual pan limit stops can be set at the controller from the Limit Stops menu:

1. Program preset 95 (28). The main menu appears.
2. Position the cursor (>) beside Limits.
3. Press the Iris Open button to enter the Limits menu.
4. Move the cursor to Set Man Limits and press the Iris Open button. PRESS IRIS OPEN TO SET LEFT LIMIT appears.
5. Move the pan and tilt to the desired left limit position and press the Iris Open button to set the left manual limit. PRESS IRIS OPEN TO SET RIGHT LIMIT appears.
6. Move the pan and tilt to the desired right limit position and press the Iris Open button to set the right manual limit.
7. Exit the Limit Stops menu.

CLEAR MANUAL STOPS

To clear the manual limit stops:

1. Program preset 95 (28). The main menu appears.
2. Position the cursor (>) beside Limits.
3. Press the Iris Open button to enter the Limits menu.
4. Move the cursor to Clear Man Limits and press the Iris Open button. The cursor changes to an asterisk (*) briefly to indicate the limits have been disabled.

Scan Limit Stops

When scan limit stops are set, the pan and tilt reverses direction during random, frame, or auto scanning when a limit stop is reached. The manual scan limit stops can be set in one of two ways:

At the controller by programming presets 92 (25) and 93 (26)
or
At the controller by programming the Limit Stops menu

PRESETS

Refer to the documentation for your control system for programming presets, and then do the following:

NOTE: *Programming preset 92 (25) disables the scan limit stops until preset 93 (26) is set. Preset 92 is the left scan limit and preset 93 is the right scan limit.*

1. Make sure limit stops are turned ON, and then exit the menu.
2. Push the joystick left until you reach the limit you want the camera to go to on the left.
3. Program preset 92 (25).
4. Push the joystick right to the limit you want the camera to go to on the right.
5. Program preset 93 (26).

Setting presets 92 (25) and 93 (26) to the same point disables manual limit stops.

LIMIT STOPS MENU

The manual pan limit stops can be set at the controller from the Limit Stops menu:

1. Program preset 95 (28). The main menu appears.
2. Position the cursor (>) beside Limits.
3. Press the Iris Open button to enter the Limits menu.
4. Move the cursor to Set Scan Limits and press the Iris Open button. PRESS IRIS OPEN TO SET LEFT LIMIT appears.
5. Move the pan and tilt to the desired left limit position and press the Iris Open button to set the left manual limit. PRESS IRIS OPEN TO SET RIGHT LIMIT appears.
6. Move the pan and tilt to the desired right limit position and press the Iris Open button to set the right scan limit.
7. Exit the Limit Stops menu.

CLEAR SCAN LIMIT STOPS

To clear the scan limit stops, move the cursor to Clear Scan Limits and press the Iris Open button. The cursor changes to an asterisk (*) briefly to indicate the limits have been disabled.

PAN/SCAN SPEED

The pan/scan speed is adjustable from 3-40 degrees per second. This occurs in three scan modes: auto, random, and frame scan.

To change the pan/scan speed:

1. Program preset 95 (28). The main menu appears.
2. Position the cursor (>) beside Other.
3. Press the Iris Open button to enter the Other menu.
4. Position the cursor (>) beside Pan/Scan Spd.
5. Press the Iris Open button. The cursor moves to the right beside the number of degrees.
6. Move the joystick up or down to toggle through the number of degrees (3-40) until you reach the number you want. (If set on a low number, the scan appears to barely move but is still functioning.)
7. SELECT - Press the Iris Open button on your keyboard to select your choice.
   CANCEL - Press the Iris Close button if you do not want to change the setting.

PARK TIME

This feature causes the pan and tilt to park at preset 1 after a programmed number of minutes of control inactivity. The time can be set from 1 minute to 720 minutes (12 hours), or it can be set to zero, which disables this feature.

To change the park time:

1. Program preset 95 (28). The main menu appears.
2. Position the cursor (>) beside Other.
3. Press the Iris Open button to enter the Other menu.
4. Position the cursor (>) beside Park Time.
5. Press the Iris Open button. The cursor moves to the right beside the current park time.
6. Move the joystick up or down to change the park time.
7. SELECT - Press the Iris Open button on your keyboard to select your choice.
   CANCEL - Press the Iris Close button if you do not want to change the setting.

NOTE: *Preset 1 must be programmed for the system to park.*

PATTERN LENGTH

The system can do either:

One full pattern - 1.5, 3, or 6 minutes long
or
Two half patterns - .75, 1.5, or 3 minutes long

To set the pattern length:

1. Program preset 95 (28). The main menu appears.
2. Position the cursor (>) beside Other.
3. Press the Iris Open button to enter the Other menu.
4. Position the cursor (>) beside Pat Length.
5. Press the Iris Open button. The cursor moves to the right, beside the number of minutes (1.5, 3, or 6).
6. Move the joystick up or down to toggle through the number of minutes (1.5, 3, or 6).
7. SELECT - Press the Iris Open button on your keyboard to select your choice.
   CANCEL - Press the Iris Close button if you do not want to change the setting.

CAUTION: *If the length is changed, all stored patterns are erased.*

POWER-UP MODE

This feature lets the system resume a desired condition following power-up. The menu includes the following choices.

- **Default -** On power-up, the pan and tilt goes through a configuration cycle and stops at zero reference, showing “Configuration Done,” address, and mode settings on the screen.
- **Park -** The pan and tilt moves to preset 1 when the power-up sequence finishes. The only text on the screen is the preset label (if any is programmed).
- **Scan Auto -** The pan and tilt initiates scan mode when the power-up sequence finishes. Again, there is no text.
- **Scan Frame -** The pan and tilt initiates a frame scan when the power-up sequence finishes.
- **Scan Rand -** The pan and tilt initiates a random scan when the power-up sequence finishes.
- **Full Pat -** The pan and tilt initiates its programmed pattern when the power-up sequence finishes. The length can be set to 1.5, 3, or 6 minutes.
- **Half Pat 1 -** The pan and tilt initiates the first half-pattern when the power-up sequence finishes. The length can be set to .75, 1.5, or 3 minutes.
- **Half Pat 2 -** The pan and tilt initiates the second half-pattern when the power-up sequence finishes. The length can be set to .75, 1.5, or 3 minutes.

The default setting is Default.

To select the power-up mode:

1. Program preset 95 (28). The main menu appears.
2. Position the cursor (>) beside Other.
3. Press the Iris Open button to enter the Other menu.
4. Position the cursor (>) beside Power Up.
5. Press the Iris Open button to enter the Power Up menu.
6. Press the Iris Open button to move the cursor to the right.
7. Move the joystick up or down to cycle through the selections. Stop on the item you want to select.
8. SELECT - Press the Iris Open button on your keyboard to select your choice.
   CANCEL - Press the Iris Close button if you do not want to change the setting.

SPEED PROFILE

This feature allows the operator to set the wind speed conditions for the location of the system. You can set two wind speed profiles of 50 mph or 90 mph in which the system will remain operational. In both settings, the pan speed will be a maximum of 40 degrees per second. The difference will be in the turbo and preset pan speeds. The turbo and preset pan speeds are 100 degrees per second in the 50 mph wind profile setting and 60 degrees per second in the 90 mph profile.

To set the speed profile:

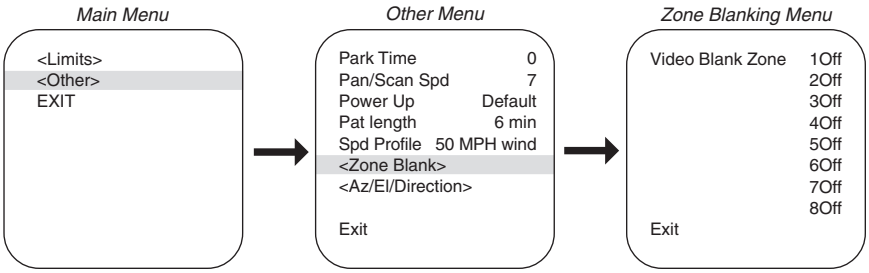
1. Program preset 95 (28). The main menu appears.
2. Position the cursor (>) beside Other.
3. Press the Iris Open button to enter the entitled Other menu.
4. Position the cursor (>) beside Spd Profile.
5. Press the Iris Open button. The cursor moves to the right, beside the wind speed (50 mph wind or 90 mph wind).
6. Move the joystick up or down to toggle through the wind speeds (50 mph wind or 90 mph wind).
7. SELECT - Press the Iris Open button on your keyboard to select your choice. CANCEL - Press the Iris Close button if you do not want to change the setting.

ZONES

Basic rules for setting zones:

1. Refer to the documentation for your control system to program zones.
2. Establish zones using the controller, prior to programming ZONE BLANK with the Esprit onscreen menu.
3. To accurately set zone areas, zoom wide to the maximum field of view.
4. Set zones moving the joystick left to right. The left position is always the start position.

ZONE BLANK



The Esprit system features onscreen programmable zone blanking. This feature lets you define any zone as blanked for video (viewing/recording).

Zones can be programmed to overlap each other, although this is not recommended. If you program two zones to overlap, the title of the zone with the highest priority (zone 8 is the highest, zone 1 is the lowest) will be displayed on the monitor. This rule also applies to blanked zones that overlap. The blanking status of the zone with the highest priority will determine if the area is blanked or not. Example: Zone 1 is blanked but a portion of the zone overlaps zone 8 which is not blanked. The overlapped portion of zone 1 will be displayed on the monitor with the zone 8 label.

There are two video zone blank settings:

On – Enables video blanking.
Off – Disables video blanking.

To change the video blank zone setting:

1. Program preset 95 (28). The main menu appears.
2. Position the cursor (>) beside Other.
3. Press the Iris Open button to enter the Other menu.
4. Position the cursor (>) beside Zone Blank.
5. Press the Iris Open button to enter the Zone Blank menu.
6. Position the cursor (>) beside the number of the zone for which you want to set the blank option.
7. Press the Iris Open button. The cursor moves to the right, beside the word On or Off.
8. Move the joystick up or down to toggle between the words On and Off.
9. SELECT – Press the Iris Open button on your keyboard to select your choice.
   CANCEL – Press the Iris Close button if you do not want to change the setting.

TROUBLESHOOTING

Symptom: System does not operate.

1. Check system input voltage.

2. Check for proper positioning of input power select switch for the transformer (ES3012-5 models only).

3. The Esprit system is protected by a resettable overcurrent protective device located in the transformer module. Whenever a fault condition is experienced in the system causing excessive current flow through the protective device, a change occurs that will prevent current flow. The protective device will remain in this state as long as power is applied and the system fault remains. The protective device will reset itself after power has been removed for a few minutes and will operate normally when the system fault has been repaired.

4. Check the camera and lens power connections and video BNC connections.

Symptom: No control/sluggish control (Coaxitron)

1. Check for correct type and length of coax cable.

2. Check for correct coax termination (refer to the controller manual to determine proper termination of video input). Normal load termination is 75 ohms. When looping through VCRs or multiplexers, make sure the signal is terminated at the end device. Some termination symptoms and problems are listed below.

Symptom	Problem
Extremely bright video	No termination or high resistance
Over contrast or contrast level of monitor needs to be increased to maximum for a good video image	Double termination (37.5 ohms)

3. If pan and tilt operation is sluggish, check the controller manual to make sure the control signal is set in the extended mode, not standard mode.

Symptom: No control (RS-422)

1. Check for correct cable type and length. The maximum cable distance for RS-422 communication over 24-gauge wire is 4,000 feet (1,219 m). Pelco recommends using shielded twisted pairs, such as Belden 9843 or similar cable, that meets or exceeds the basic requirements for EIA RS-422 or RS-485 applications.

2. Check for correct wire connections between transmitting device (such as the CM6700 Series matrix system) and Esprit system receiver. Correct connections are from the transmitting device TX+ to Esprit system RX+ and from the transmitting device TX- to Esprit system RX-.

3. Check for correct DIP switch settings.

4. Check that the video is terminated.

Symptom: Ground loops

Ground loops are indicated by seeing 60 Hz noise on the video.

1. Check for resistance between the grounds of the keyboard and the system. Ideally, there should be zero ohms.

2. Remove the coax BNC connector and check for voltage between the BNC shield of the controller and the BNC shield of the system. No voltage should be detected.

It is recommended that a Pelco GIT100 ground isolation transformer be installed to eliminate the above problems.

NOTE: *The system contains no user-serviceable parts. If there is a problem with your system, it must be returned to Pelco for servicing.*

Symptom: No video or poor video

1. Check the video and power connections to the camera.
2. Check for power to the camera from the Esprit system camera power output.
3. Check all coax BNC connectors from the camera to the monitor.
4. Make sure the controller is set for the correct camera-to-monitor viewing combination; for example, Camera 1 to Monitor 1. Refer to the controller manual for information.
5. Check for normal load termination of 75 ohms. When looping through VCRs or multiplexers, make sure the signal is terminated at the end device. Some termination symptoms and problems are listed below.

Symptom	Problem
Extremely bright video	No termination or high resistance
Over contrast or contrast level of monitor needs to be increased to maximum for a good video image	Double termination (37.5 ohms)

MAINTENANCE

Clean the enclosure window periodically with a mild non-abrasive detergent in water and a soft cloth to help maintain picture clarity.

If operating problems are experienced with the system, refer to the *Troubleshooting* section.

The pan and tilt is IP 66 and NEMA 4X certified. The pan and tilt left side cover must be removed to gain access to the DIP switches. When the cover is correctly reinstalled, the certification will remain in effect.

Since there are no user-serviceable parts in the Esprit system, if further maintenance is required, it is recommended that the Pelco Customer Service Department be contacted for assistance. Refer to the *Warranty and Return Information* section.

APPENDIX

NOTE: *Esprit will sense and automatically select input from Coaxitron control signals in either the standard or extended mode. Therefore, the DIP switches settings have no effect on Coaxitron control signals.*

Table A. Switch Settings for SW1

Baud Rate	Switch Setting		
	SW1-1	**SW1-2**	**SW1-3**
2400	OFF	OFF	OFF*
4800	ON	OFF	OFF*
9600	OFF	ON	OFF*

* SW1-3 is not used; set it in the OFF position.

Switch Setting				
SW1-4	**SW1-5**	**SW1-6**	**SW1-7**	**SW1-8**
OFF*	**Note (1)**	**Note (2)**	**Note (3)**	**Note (4)**

NOTES:

(1) SW1-5
- OFF - For controllers that have more than 32 presets.
- ON - For American Dynamics controllers (32 presets).

(2) SW1-6
- OFF - For all control systems except CM9502 with **variable** speed keyboards. For CM9502 with **fixed** speed keyboards, set switch OFF.
- ON - For CM9502 with **variable** speed keyboards to get smoother joystick control.

(3) SW1-7
- OFF - RS-422 transmitter is not terminated.
- ON - RS-422 transmitter is terminated.

(4) SW1-8
- OFF - RS-422 receiver is not terminated.
- ON - RS-422 receiver is terminated.

* SW1-4 is not used; set it in the OFF position.

Table B. Switch Settings for SW2

NOTE: *The Esprit will sense and automatically select input from Coaxitron control signals in either the standard or extended mode. Therefore, the DIP switches settings have no effect on Coaxitron control signals.*

Receiver Address		Switch Setting							
P-Type Control	D-Type Control	SW2-1	SW2-2	SW2-3	SW2-4	SW2-5	SW2-6	SW2-7	SW2-8
1	–	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
2	1	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
3	2	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF
4	3	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF
5	4	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF
6	5	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF
7	6	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF
8	7	ON	ON	ON	OFF	OFF	OFF	OFF	OFF
9	8	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF
10	9	ON	OFF	OFF	ON	OFF	OFF	OFF	OFF
11	10	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF
12	11	ON	ON	OFF	ON	OFF	OFF	OFF	OFF
13	12	OFF	OFF	ON	ON	OFF	OFF	OFF	OFF
14	13	ON	OFF	ON	ON	OFF	OFF	OFF	OFF
15	14	OFF	ON	ON	ON	OFF	OFF	OFF	OFF
16	15	ON	ON	ON	ON	OFF	OFF	OFF	OFF
17	16	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF
18	17	ON	OFF	OFF	OFF	ON	OFF	OFF	OFF
19	18	OFF	ON	OFF	OFF	ON	OFF	OFF	OFF
20	19	ON	ON	OFF	OFF	ON	OFF	OFF	OFF
21	20	OFF	OFF	ON	OFF	ON	OFF	OFF	OFF
22	21	ON	OFF	ON	OFF	ON	OFF	OFF	OFF
23	22	OFF	ON	ON	OFF	ON	OFF	OFF	OFF
24	23	ON	ON	ON	OFF	ON	OFF	OFF	OFF
25	24	OFF	OFF	OFF	ON	ON	OFF	OFF	OFF
26	25	ON	OFF	OFF	ON	ON	OFF	OFF	OFF
27	26	OFF	ON	OFF	ON	ON	OFF	OFF	OFF
28	27	ON	ON	OFF	ON	ON	OFF	OFF	OFF
29	28	OFF	OFF	ON	ON	ON	OFF	OFF	OFF
30	29	ON	OFF	ON	ON	ON	OFF	OFF	OFF
31	30	OFF	ON	ON	ON	ON	OFF	OFF	OFF
32	31	ON	ON	ON	ON	ON	OFF	OFF	OFF
–	32	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF
–	33	ON	OFF	OFF	OFF	OFF	ON	OFF	OFF
–	34	OFF	ON	OFF	OFF	OFF	ON	OFF	OFF
–	35	ON	ON	OFF	OFF	OFF	ON	OFF	OFF
–	36	OFF	OFF	ON	OFF	OFF	ON	OFF	OFF
–	37	ON	OFF	ON	OFF	OFF	ON	OFF	OFF
–	38	OFF	ON	ON	OFF	OFF	ON	OFF	OFF
–	39	ON	ON	ON	OFF	OFF	ON	OFF	OFF
–	40	OFF	OFF	OFF	ON	OFF	ON	OFF	OFF
–	41	ON	OFF	OFF	ON	OFF	ON	OFF	OFF
–	42	OFF	ON	OFF	ON	OFF	ON	OFF	OFF
–	43	ON	ON	OFF	ON	OFF	ON	OFF	OFF
–	44	OFF	OFF	ON	ON	OFF	ON	OFF	OFF
–	45	ON	OFF	ON	ON	OFF	ON	OFF	OFF
–	46	OFF	ON	ON	ON	OFF	ON	OFF	OFF
–	47	ON	ON	ON	ON	OFF	ON	OFF	OFF
–	48	OFF	OFF	OFF	OFF	ON	ON	OFF	OFF
–	49	ON	OFF	OFF	OFF	ON	ON	OFF	OFF
–	50	OFF	ON	OFF	OFF	ON	ON	OFF	OFF
–	51	ON	ON	OFF	OFF	ON	ON	OFF	OFF
–	52	OFF	OFF	ON	OFF	ON	ON	OFF	OFF
–	53	ON	OFF	ON	OFF	ON	ON	OFF	OFF
–	54	OFF	ON	ON	OFF	ON	ON	OFF	OFF
–	55	ON	ON	ON	OFF	ON	ON	OFF	OFF
–	56	OFF	OFF	OFF	ON	ON	ON	OFF	OFF
–	57	ON	OFF	OFF	ON	ON	ON	OFF	OFF
–	58	OFF	ON	OFF	ON	ON	ON	OFF	OFF
–	59	ON	ON	OFF	ON	ON	ON	OFF	OFF
–	60	OFF	OFF	ON	ON	ON	ON	OFF	OFF
–	61	ON	OFF	ON	ON	ON	ON	OFF	OFF
–	62	OFF	ON	ON	ON	ON	ON	OFF	OFF
–	63	ON	ON	ON	ON	ON	ON	OFF	OFF
–	64	OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF
–	65	ON	OFF	OFF	OFF	OFF	OFF	ON	OFF
–	66	OFF	ON	OFF	OFF	OFF	OFF	ON	OFF
–	67	ON	ON	OFF	OFF	OFF	OFF	ON	OFF
–	68	OFF	OFF	ON	OFF	OFF	OFF	ON	OFF
–	69	ON	OFF	ON	OFF	OFF	OFF	ON	OFF
–	70	OFF	ON	ON	OFF	OFF	OFF	ON	OFF
–	71	ON	ON	ON	OFF	OFF	OFF	ON	OFF
–	72	OFF	OFF	OFF	ON	OFF	OFF	ON	OFF
–	73	ON	OFF	OFF	ON	OFF	OFF	ON	OFF
–	74	OFF	ON	OFF	ON	OFF	OFF	ON	OFF
–	75	ON	ON	OFF	ON	OFF	OFF	ON	OFF
–	76	OFF	OFF	ON	ON	OFF	OFF	ON	OFF
–	77	ON	OFF	ON	ON	OFF	OFF	ON	OFF
–	78	OFF	ON	ON	ON	OFF	OFF	ON	OFF
–	79	ON	ON	ON	ON	OFF	OFF	ON	OFF
–	80	OFF	OFF	OFF	OFF	ON	OFF	ON	OFF
–	81	ON	OFF	OFF	OFF	ON	OFF	ON	OFF
–	82	OFF	ON	OFF	OFF	ON	OFF	ON	OFF
–	83	ON	ON	OFF	OFF	ON	OFF	ON	OFF
–	84	OFF	OFF	ON	OFF	ON	OFF	ON	OFF
–	85	ON	OFF	ON	OFF	ON	OFF	ON	OFF
–	86	OFF	ON	ON	OFF	ON	OFF	ON	OFF
–	87	ON	ON	ON	OFF	ON	OFF	ON	OFF
–	88	OFF	OFF	OFF	ON	ON	OFF	ON	OFF
–	89	ON	OFF	OFF	ON	ON	OFF	ON	OFF
–	90	OFF	ON	OFF	ON	ON	OFF	ON	OFF
–	91	ON	ON	OFF	ON	ON	OFF	ON	OFF
–	92	OFF	OFF	ON	ON	ON	OFF	ON	OFF
–	93	ON	OFF	ON	ON	ON	OFF	ON	OFF
–	94	OFF	ON	ON	ON	ON	OFF	ON	OFF
–	95	ON	ON	ON	ON	ON	OFF	ON	OFF
–	96	OFF	OFF	OFF	OFF	OFF	ON	ON	OFF
–	97	ON	OFF	OFF	OFF	OFF	ON	ON	OFF
–	98	OFF	ON	OFF	OFF	OFF	ON	ON	OFF
–	99	ON	ON	OFF	OFF	OFF	ON	ON	OFF
–	100	OFF	OFF	ON	OFF	OFF	ON	ON	OFF
–	101	ON	OFF	ON	OFF	OFF	ON	ON	OFF
–	102	OFF	ON	ON	OFF	OFF	ON	ON	OFF
–	103	ON	ON	ON	OFF	OFF	ON	ON	OFF
–	104	OFF	OFF	OFF	ON	OFF	ON	ON	OFF
–	105	ON	OFF	OFF	ON	OFF	ON	ON	OFF
–	106	OFF	ON	OFF	ON	OFF	ON	ON	OFF
–	107	ON	ON	OFF	ON	OFF	ON	ON	OFF
–	108	OFF	OFF	ON	ON	OFF	ON	ON	OFF
–	109	ON	OFF	ON	ON	OFF	ON	ON	OFF
–	110	OFF	ON	ON	ON	OFF	ON	ON	OFF
–	111	ON	ON	ON	ON	OFF	ON	ON	OFF

(Continued on next page)

Table B. Switch Settings for SW2 (continued)

Receiver Address		Switch Setting							
P-Type Control	D-Type Control	SW2-1	SW2-2	SW2-3	SW2-4	SW2-5	SW2-6	SW2-7	SW2-8
–	112	OFF	OFF	OFF	OFF	ON	ON	ON	OFF
–	113	ON	OFF	OFF	OFF	ON	ON	ON	OFF
–	114	OFF	ON	OFF	OFF	ON	ON	ON	OFF
–	115	ON	ON	OFF	OFF	ON	ON	ON	OFF
–	116	OFF	OFF	ON	OFF	ON	ON	ON	OFF
–	117	ON	OFF	ON	OFF	ON	ON	ON	OFF
–	118	OFF	ON	ON	OFF	ON	ON	ON	OFF
–	119	ON	ON	ON	OFF	ON	ON	ON	OFF
–	120	OFF	OFF	OFF	ON	ON	ON	ON	OFF
–	121	ON	OFF	OFF	ON	ON	ON	ON	OFF
–	122	OFF	ON	OFF	ON	ON	ON	ON	OFF
–	123	ON	ON	OFF	ON	ON	ON	ON	OFF
–	124	OFF	OFF	ON	ON	ON	ON	ON	OFF
–	125	ON	OFF	ON	ON	ON	ON	ON	OFF
–	126	OFF	ON	ON	ON	ON	ON	ON	OFF
–	127	ON	ON	ON	ON	ON	ON	ON	OFF
–	128	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON
–	129	ON	OFF	OFF	OFF	OFF	OFF	OFF	ON
–	130	OFF	ON	OFF	OFF	OFF	OFF	OFF	ON
–	131	ON	ON	OFF	OFF	OFF	OFF	OFF	ON
–	132	OFF	OFF	ON	OFF	OFF	OFF	OFF	ON
–	133	ON	OFF	ON	OFF	OFF	OFF	OFF	ON
–	134	OFF	ON	ON	OFF	OFF	OFF	OFF	ON
–	135	ON	ON	ON	OFF	OFF	OFF	OFF	ON
–	136	OFF	OFF	OFF	ON	OFF	OFF	OFF	ON
–	137	ON	OFF	OFF	ON	OFF	OFF	OFF	ON
–	138	OFF	ON	OFF	ON	OFF	OFF	OFF	ON
–	139	ON	ON	OFF	ON	OFF	OFF	OFF	ON
–	140	OFF	OFF	ON	ON	OFF	OFF	OFF	ON
–	141	ON	OFF	ON	ON	OFF	OFF	OFF	ON
–	142	OFF	ON	ON	ON	OFF	OFF	OFF	ON
–	143	ON	ON	ON	ON	OFF	OFF	OFF	ON
–	144	OFF	OFF	OFF	OFF	ON	OFF	OFF	ON
–	145	ON	OFF	OFF	OFF	ON	OFF	OFF	ON
–	146	OFF	ON	OFF	OFF	ON	OFF	OFF	ON
–	147	ON	ON	OFF	OFF	ON	OFF	OFF	ON
–	148	OFF	OFF	ON	OFF	ON	OFF	OFF	ON
–	149	ON	OFF	ON	OFF	ON	OFF	OFF	ON
–	150	OFF	ON	ON	OFF	ON	OFF	OFF	ON
–	151	ON	ON	ON	OFF	ON	OFF	OFF	ON
–	152	OFF	OFF	OFF	ON	ON	OFF	OFF	ON
–	153	ON	OFF	OFF	ON	ON	OFF	OFF	ON
–	154	OFF	ON	OFF	ON	ON	OFF	OFF	ON
–	155	ON	ON	OFF	ON	ON	OFF	OFF	ON
–	156	OFF	OFF	ON	ON	ON	OFF	OFF	ON
–	157	ON	OFF	ON	ON	ON	OFF	OFF	ON
–	158	OFF	ON	ON	ON	ON	OFF	OFF	ON
–	159	ON	ON	ON	ON	ON	OFF	OFF	ON
–	160	OFF	OFF	OFF	OFF	OFF	ON	OFF	ON
–	161	ON	OFF	OFF	OFF	OFF	ON	OFF	ON
–	162	OFF	ON	OFF	OFF	OFF	ON	OFF	ON
–	163	ON	ON	OFF	OFF	OFF	ON	OFF	ON
–	164	OFF	OFF	ON	OFF	OFF	ON	OFF	ON
–	165	ON	OFF	ON	OFF	OFF	ON	OFF	ON
–	166	OFF	ON	ON	OFF	OFF	ON	OFF	ON
–	167	ON	ON	ON	OFF	OFF	ON	OFF	ON
–	168	OFF	OFF	OFF	ON	OFF	ON	OFF	ON
–	169	ON	OFF	OFF	ON	OFF	ON	OFF	ON
–	170	OFF	ON	OFF	ON	OFF	ON	OFF	ON
–	171	ON	ON	OFF	ON	OFF	ON	OFF	ON
–	172	OFF	OFF	ON	ON	OFF	ON	OFF	ON
–	173	ON	OFF	ON	ON	OFF	ON	OFF	ON
–	174	OFF	ON	ON	ON	OFF	ON	OFF	ON
–	175	ON	ON	ON	ON	OFF	ON	OFF	ON
–	176	OFF	OFF	OFF	OFF	ON	ON	OFF	ON
–	177	ON	OFF	OFF	OFF	ON	ON	OFF	ON
–	178	OFF	ON	OFF	OFF	ON	ON	OFF	ON
–	179	ON	ON	OFF	OFF	ON	ON	OFF	ON
–	180	OFF	OFF	ON	OFF	ON	ON	OFF	ON
–	181	ON	OFF	ON	OFF	ON	ON	OFF	ON
–	182	OFF	ON	ON	OFF	ON	ON	OFF	ON
–	183	ON	ON	ON	OFF	ON	ON	OFF	ON
–	184	OFF	OFF	OFF	ON	ON	ON	OFF	ON
–	185	ON	OFF	OFF	ON	ON	ON	OFF	ON
–	186	OFF	ON	OFF	ON	ON	ON	OFF	ON
–	187	ON	ON	OFF	ON	ON	ON	OFF	ON
–	188	OFF	OFF	ON	ON	ON	ON	OFF	ON
–	189	ON	OFF	ON	ON	ON	ON	OFF	ON
–	190	OFF	ON	ON	ON	ON	ON	OFF	ON
–	191	ON	ON	ON	ON	ON	ON	OFF	ON
–	192	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON
–	193	ON	OFF	OFF	OFF	OFF	OFF	ON	ON
–	194	OFF	ON	OFF	OFF	OFF	OFF	ON	ON
–	195	ON	ON	OFF	OFF	OFF	OFF	ON	ON
–	196	OFF	OFF	ON	OFF	OFF	OFF	ON	ON
–	197	ON	OFF	ON	OFF	OFF	OFF	ON	ON
–	198	OFF	ON	ON	OFF	OFF	OFF	ON	ON
–	199	ON	ON	ON	OFF	OFF	OFF	ON	ON
–	200	OFF	OFF	OFF	ON	OFF	OFF	ON	ON
–	201	ON	OFF	OFF	ON	OFF	OFF	ON	ON
–	202	OFF	ON	OFF	ON	OFF	OFF	ON	ON
–	203	ON	ON	OFF	ON	OFF	OFF	ON	ON
–	204	OFF	OFF	ON	ON	OFF	OFF	ON	ON
–	205	ON	OFF	ON	ON	OFF	OFF	ON	ON
–	206	OFF	ON	ON	ON	OFF	OFF	ON	ON
–	207	ON	ON	ON	ON	OFF	OFF	ON	ON
–	208	OFF	OFF	OFF	OFF	ON	OFF	ON	ON
–	209	ON	OFF	OFF	OFF	ON	OFF	ON	ON
–	210	OFF	ON	OFF	OFF	ON	OFF	ON	ON
–	211	ON	ON	OFF	OFF	ON	OFF	ON	ON
–	212	OFF	OFF	ON	OFF	ON	OFF	ON	ON
–	213	ON	OFF	ON	OFF	ON	OFF	ON	ON
–	214	OFF	ON	ON	OFF	ON	OFF	ON	ON
–	215	ON	ON	ON	OFF	ON	OFF	ON	ON
–	216	OFF	OFF	OFF	ON	ON	OFF	ON	ON
–	217	ON	OFF	OFF	ON	ON	OFF	ON	ON
–	218	OFF	ON	OFF	ON	ON	OFF	ON	ON
–	219	ON	ON	OFF	ON	ON	OFF	ON	ON
–	220	OFF	OFF	ON	ON	ON	OFF	ON	ON
–	221	ON	OFF	ON	ON	ON	OFF	ON	ON
–	222	OFF	ON	ON	ON	ON	OFF	ON	ON
–	223	ON	ON	ON	ON	ON	OFF	ON	ON
–	224	OFF	OFF	OFF	OFF	OFF	ON	ON	ON
–	225	ON	OFF	OFF	OFF	OFF	ON	ON	ON
–	226	OFF	ON	OFF	OFF	OFF	ON	ON	ON
–	227	ON	ON	OFF	OFF	OFF	ON	ON	ON
–	228	OFF	OFF	ON	OFF	OFF	ON	ON	ON
–	229	ON	OFF	ON	OFF	OFF	ON	ON	ON
–	230	OFF	ON	ON	OFF	OFF	ON	ON	ON
–	231	ON	ON	ON	OFF	OFF	ON	ON	ON

(Continued on next page)

Table B. Switch Settings for SW2 (continued)

Receiver Address		Switch Setting							
P-Type Control	D-Type Control	SW2-1	SW2-2	SW2-3	SW2-4	SW2-5	SW2-6	SW2-7	SW2-8
–	232	OFF	OFF	OFF	ON	OFF	ON	ON	ON
–	233	ON	OFF	OFF	ON	OFF	ON	ON	ON
–	234	OFF	ON	OFF	ON	OFF	ON	ON	ON
–	235	ON	ON	OFF	ON	OFF	ON	ON	ON
–	236	OFF	OFF	ON	ON	OFF	ON	ON	ON
–	237	ON	OFF	ON	ON	OFF	ON	ON	ON
–	238	OFF	ON	ON	ON	OFF	ON	ON	ON
–	239	ON	ON	ON	ON	OFF	ON	ON	ON
–	240	OFF	OFF	OFF	OFF	ON	ON	ON	ON
–	241	ON	OFF	OFF	OFF	ON	ON	ON	ON
–	242	OFF	ON	OFF	OFF	ON	ON	ON	ON
–	243	ON	ON	OFF	OFF	ON	ON	ON	ON

Receiver Address		Switch Setting							
P-Type Control	D-Type Control	SW2-1	SW2-2	SW2-3	SW2-4	SW2-5	SW2-6	SW2-7	SW2-8
–	244	OFF	OFF	ON	OFF	ON	ON	ON	ON
–	245	ON	OFF	ON	OFF	ON	ON	ON	ON
–	246	OFF	ON	ON	OFF	ON	ON	ON	ON
–	247	ON	ON	ON	OFF	ON	ON	ON	ON
–	248	OFF	OFF	OFF	ON	ON	ON	ON	ON
–	249	ON	OFF	OFF	ON	ON	ON	ON	ON
–	250	OFF	ON	OFF	ON	ON	ON	ON	ON
–	251	ON	ON	OFF	ON	ON	ON	ON	ON
–	252	OFF	OFF	ON	ON	ON	ON	ON	ON
–	253	ON	OFF	ON	ON	ON	ON	ON	ON
–	254	OFF	ON	ON	ON	ON	ON	ON	ON

SPECIFICATIONS

ELECTRICAL

Input Voltage:	24 or 120/230 VAC, 50/60 Hz; on ES3012-5 models, a switch is installed on the transformer module located in the mount base to make 120 or 230 VAC input voltage selection. Reset feature enabled when power becomes unstable or interrupted.
Power Requirements:	Maximum power consumption is 70 VA per system
Heater and Defroster:	Thermostatically controlled heater consumes 10 watts and cycles on at 70°F (21°C) and off at 85°F (29°C); the window defroster runs continuously and consumes 2.5 watts.
Electrical Connections:	Two power source connections made at the mount location with wire nut splices and one ground terminal; one BNC connector and four terminals on the interconnect PCB at the mount location.

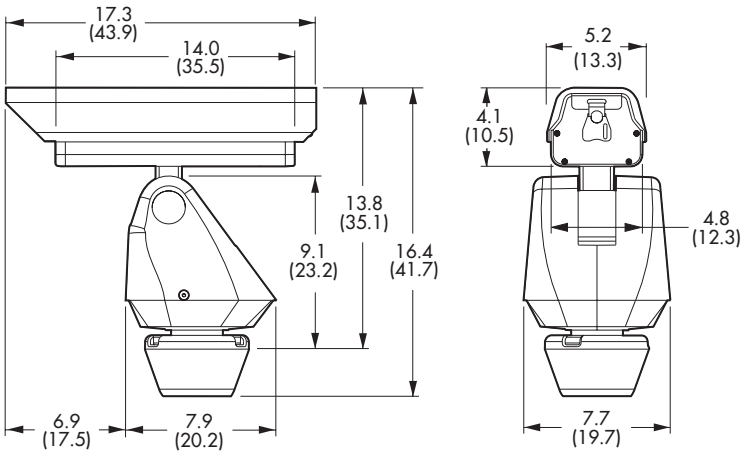
MECHANICAL

Construction:	Die-cast, extruded and sheet aluminum; stainless steel hardware
Finish:	Gray polyester powder coat, anodized
Viewing Window:	0.18-inch (4.76 mm) thick, optically clear impact-resistant MR5 coated Lexan® (U.L. 94HB rated)
Window Viewing Area:	2-inch (5 cm) diameter
Esprit System Mounting:	Three 10-32 stainless-steel screws and washers (supplied) to attach the Esprit system to the EWM wall mount; three 10-32 stainless-steel nuts and washers (supplied) to attach the Esprit system to the EPA pedestal adapter
Enclosure Camera Mounting (Non-ImagePak models):	Elongated holes on removable camera mount; supplied with a camera mount adapter to accommodate various heights of cameras
Maximum Camera and Lens Size (Non-ImagePak models):	Accepts 24 VAC camera and lens combinations (including BNC connector) up to 2.87 (W) x 3.15 (H) x 12.10 (L) inches (7.28 x 8.00 x 30.73 cm)
Latches:	One link-lock, No. 3 stainless steel latch; can be secured with padlock (not supplied)

GENERAL

Environment:	• Indoor/outdoor • Capable of continuous-duty operation • Temperature range -40° to 122°F (-40° to 50°C) • Operating temperature range -40°F (-40°C) to 122°F (50°C) for sustained system operation or 140°F (60°C) absolute maximum • Will remain operational in 90 mph wind conditions
Ratings:	IP 66 NEMA 4X
Dimensions:	See Figure 1
Weight	
ES3012-2/-5:	20.0 lb (9.1 kg)
ES3012-2N/-5N:	20.6 lb (9.3 kg)
ES3000 Series (ImagePak):	25.7 lb (11.7 kg)

(Design and product specifications subject to change without notice.)



NOTE: VALUES IN PARENTHESES ARE CENTIMETERS;
ALL OTHERS ARE INCHES.

Figure 1. Esprit ES3012 System Dimensions Drawing

REGULATORY NOTICES

This equipment has been tested and found to comply with the limits of a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However there is no guarantee that the interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

PRODUCT WARRANTY AND RETURN INFORMATION

WARRANTY

Pelco will repair or replace, without charge, any merchandise proved defective in material or workmanship **for a period of one year** after the date of shipment.

Exceptions to this warranty are as noted below:

- Five years on FT/FR8000 Series fiber optic products.
- Three years on Genex® Series products (multiplexers, server, and keyboard).
- Three years on Camclosure® and fixed camera models, except the CC3701H-2, CC3701H-2X, CC3751H-2, CC3651H-2X, MC3651H-2, and MC3651H-2X camera models, which have a five-year warranty.
- Two years on standard motorized or fixed focal length lenses.
- Two years on Legacy®, CM6700/CM6800/CM9700 Series matrix, and DF5/DF8 Series fixed dome products.
- Two years on Spectra®, Esprit®, ExSite™, and PS20 scanners, including when used in continuous motion applications.
- Two years on Esprit® and WW5700 Series window wiper (excluding wiper blades).
- Eighteen months on DX Series digital video recorders, NVR300 Series network video recorders, and Endura™ Series distributed network-based video products.
- One year (except video heads) on video cassette recorders (VCRs). Video heads will be covered for a period of six months.
- Six months on all pan and tilts, scanners or preset lenses used in continuous motion applications (that is, preset scan, tour and auto scan modes).

Pelco will warrant all replacement parts and repairs for 90 days from the date of Pelco shipment. All goods requiring warranty repair shall be sent freight prepaid to Pelco, Clovis, California. Repairs made necessary by reason of misuse, alteration, normal wear, or accident are not covered under this warranty.

Pelco assumes no risk and shall be subject to no liability for damages or loss resulting from the specific use or application made of the Products. Pelco's liability for any claim, whether based on breach of contract, negligence, infringement of any rights of any party or product liability, relating to the Products shall not exceed the price paid by the Dealer to Pelco for such Products. In no event will Pelco be liable for any special, incidental or consequential damages (including loss of use, loss of profit and claims of third parties) however caused, whether by the negligence of Pelco or otherwise.

The above warranty provides the Dealer with specific legal rights. The Dealer may also have additional rights, which are subject to variation from state to state.

If a warranty repair is required, the Dealer must contact Pelco at (800) 289-9100 or (559) 292-1981 to obtain a Repair Authorization number (RA), and provide the following information:

1. Model and serial number
2. Date of shipment, P.O. number, Sales Order number, or Pelco invoice number
3. Details of the defect or problem

If there is a dispute regarding the warranty of a product which does not fall under the warranty conditions stated above, please include a written explanation with the product when returned.

Method of return shipment shall be the same or equal to the method by which the item was received by Pelco.

RETURNS

In order to expedite parts returned to the factory for repair or credit, please call the factory at (800) 289-9100 or (559) 292-1981 to obtain an authorization number (CA number if returned for credit, and RA number if returned for repair).

All merchandise returned for credit may be subject to a 20% restocking and refurbishing charge.

Goods returned for repair or credit should be clearly identified with the assigned CA or RA number and freight should be prepaid. Ship to the appropriate address below.

If you are located within the continental U.S., Alaska, Hawaii or Puerto Rico, send goods to:

Service Department
Pelco
3500 Pelco Way
Clovis, CA 93612-5699

If you are located outside the continental U.S., Alaska, Hawaii or Puerto Rico and are instructed to return goods to the USA, you may do one of the following:

If the goods are to be sent by a COURIER SERVICE, send the goods to:

Pelco
3500 Pelco Way
Clovis, CA 93612-5699 USA

If the goods are to be sent by a FREIGHT FORWARDER, send the goods to:

Pelco c/o Expeditors
473 Eccles Avenue
South San Francisco, CA 94080 USA
Phone: 650-737-1700
Fax: 650-737-0933

REVISION HISTORY

Manual #	Date	Comments
C306M	1/99	Original version.
C306M-A	3/99	Added 24 VAC models. Removed auxiliary functions. Added certifications. Revised operating temperature and weights. Revised manual to new format.
	5/99	Removed TXB-AB Translator Board installation procedure. Clarified DIP switch setting information.
C306M-B	6/00	Revised and added illustrations to installation instructions. Removed installation instructions for Esprit mounts (EWM, EPA and EPM). All Esprit mounts moved to manual C225M-A.
C306M-C	12/00	Added information on "Pan Limit" message per ECO #00-6615. Updated Figure 1.
C306M-D	1/01	Revised installation instructions.
C306M-E	2/01	Added RS-422 and wiper functions material to the *Troubleshooting* section. In March, removed wiper material from *Troubleshooting* section as a running change.
C306M-F	6/01	Added zone blanking information.
C306M-G	8/02	Revised per ECO 02-8063
C306M-H	11/02	Revised installation instructions for addition of alignment label.
C306M-I	2/04	Referenced wire clamps per ECO #04-9710.
C306M-J	6/04	Added Az/El/Direction menu per ECO #04-9694.
C306M-K	4/05	Revised maximum power consumption to 70 VA per ECO 05-10812. Updated *Product Warranty and Return Information.*

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