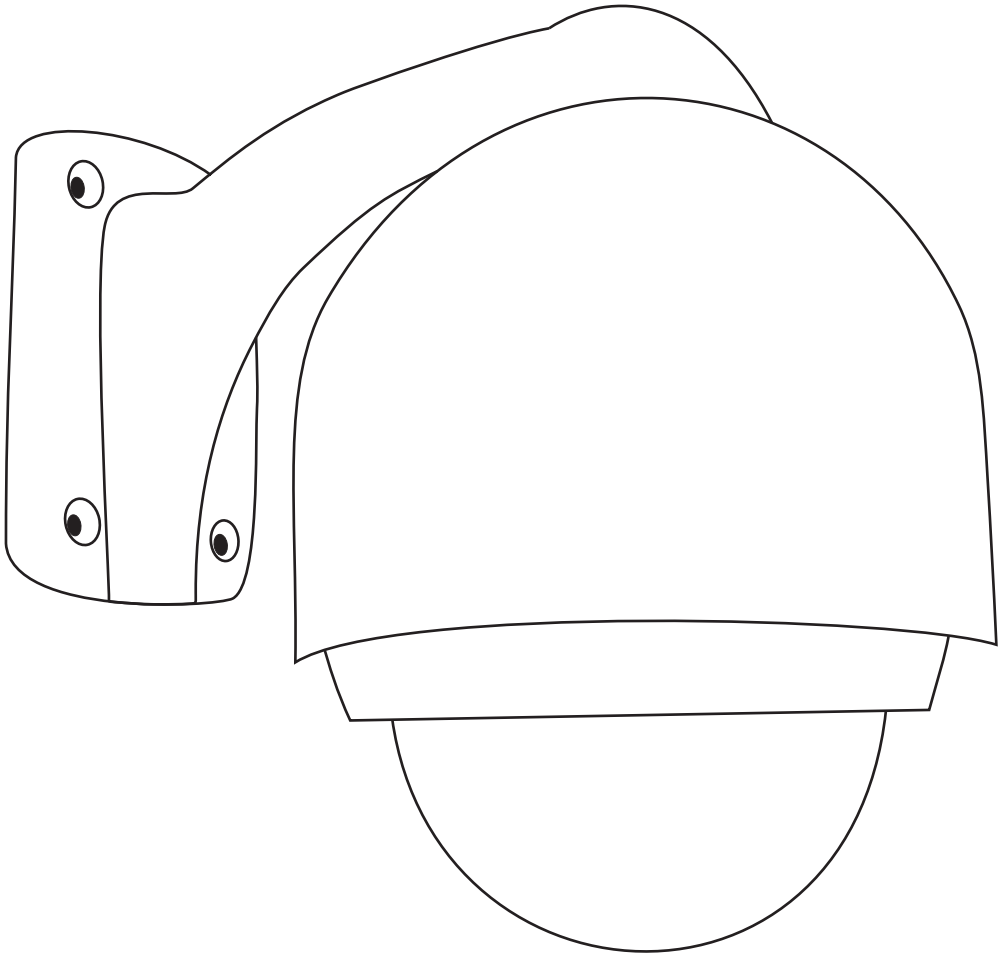
INSTRUCTIONS



6722
960H Outdoor PTZ Dome Camera with Fan & Heater

CHANNEL VISION™

Contents

Safety Warnings

IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.

2. Keep these instructions for future reference.

3. Heed all warnings.

4. Follow all instructions.

5. Clean only with a dry cloth.

6. Install in accordance with these instructions.

7 Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus that produce heat.

8. Do not defeat the safety purpose of the polarized-type plug. A polarized plug has two blades with one wider than the other. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

9. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point of exit from the apparatus.

10. Only use attachments/accessories specified by Channel Vision.

11. Unplug this apparatus during lightning storms or when unused for long periods of time.

12. 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 inside of the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

13. The lightning flash with an arrowhead symbol within an equilateral triangle is intended to alert the user to presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

14. The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance accompanying the appliance.

15. Inside of apparatus shall not be exposed to dripping or splashing and objects filled with liquids.

CAUTION: To reduce the risk of electric shock, do not remove the cover (or back). There are no user-serviceable parts inside, refer servicing to qualified service personnel.

Introduction

Thank you for purchasing Channel Vision's 6722 Outdoor PTZ Camera. Please take the time to read over these instructions to ensure proper installation and usage.

Channel Vision's hi-res 960H 6722 Outdoor PTZ Camera provides pan, tilt and zoom functions enabling wide area coverage and the ability to view objects in great detail with a 27x optical zoom. This camera can be controlled with either a Channel Vision DVR or from any device that supports Pelco D and Pelco P standards. With its high resolution 650 TV line CCD, it is the perfect solution for any residential or commercial application that requires a higher level of control than a standard analog camera.

Features

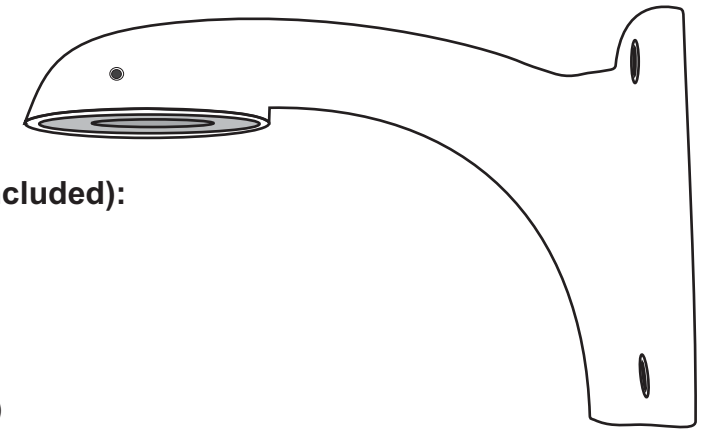
- 960H High Resolution
- Supports up to 255 Camera Ids
- Integrated multi-protocol and auto protocol differentiation
- 360 degree Pan (Up to 300 degrees per second)
- 90 degree Tilt (Up to 120 degrees per second)
- 2 degree angle adjustment, allowing viewing angle can be adjusted to 90 or 92 degrees
- Supports 128 preset locations
- IP66 rated for outdoor use
- Long distance RS-485 transmission
- 4 Selectable baud rates
- Camera name overlaid onto the video (location adjustable)
- Supports up to 6 vector scans (preset tours with adjustable dwell time)
- Supports privacy masking
- Supports freeze frame functionality
- Non-volatile memory

Box Contents

Items Included:

(1) Camera Mount
(1) Camera Enclosure
(1) Camera Module
(1) 24VAC Power Supply
(1) Instruction Manual
(4) Lag Screws

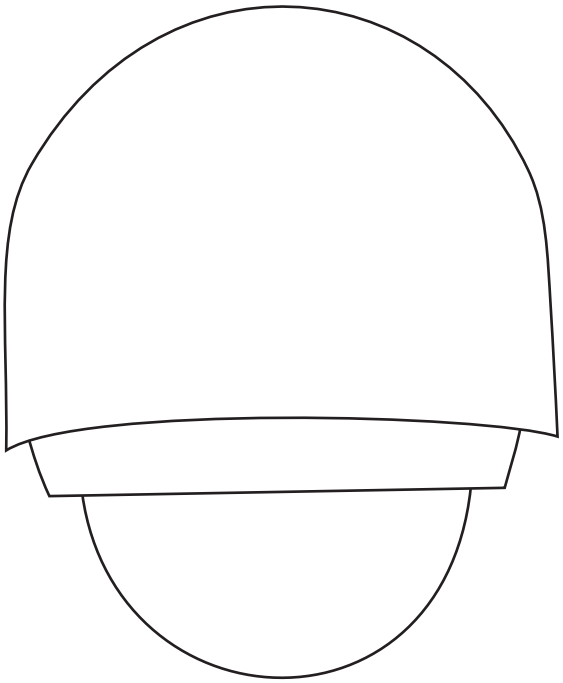
6722 Camera Mount



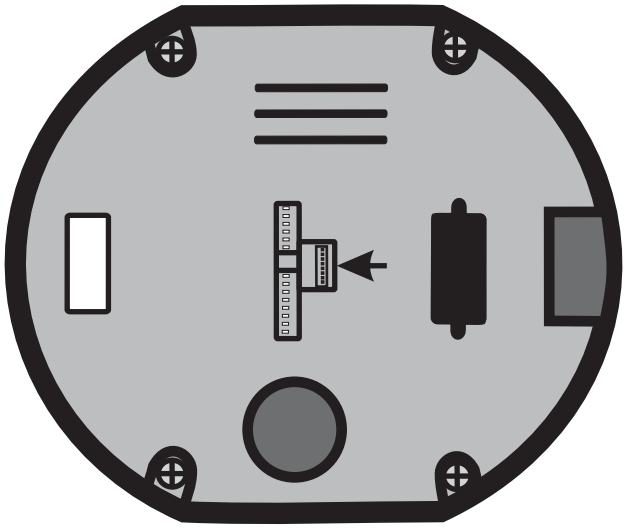
Tools & Accessories Required (Not included):

(1) Small screwdriver (flathead)
(1) Phillips Screwdriver
(1) Wire stripper
(1) Wire cutter
(1) Two conductor power wire (16 AWG)
(1) RG-59U coax cable
(2) BNC connectors
(1) Two conductor RS-485 wire (16-24 AWG)
(2) Crimp on splice connectors for power wires
(1) Allen key (size is 7/64)

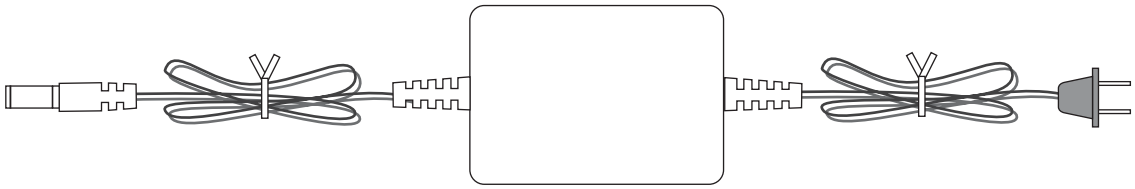
6722 Camera Enclosure



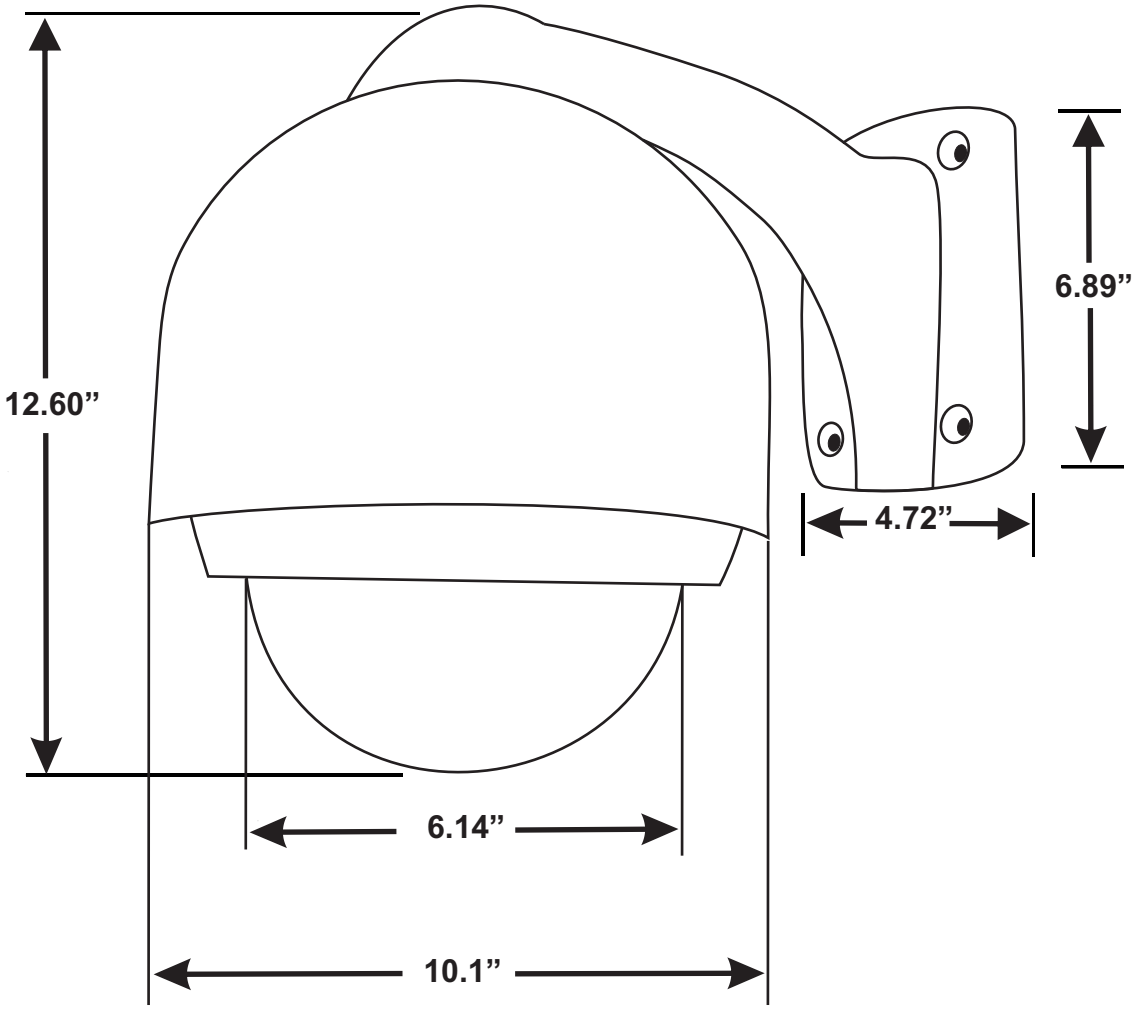
6722 Camera Module (rear shown)

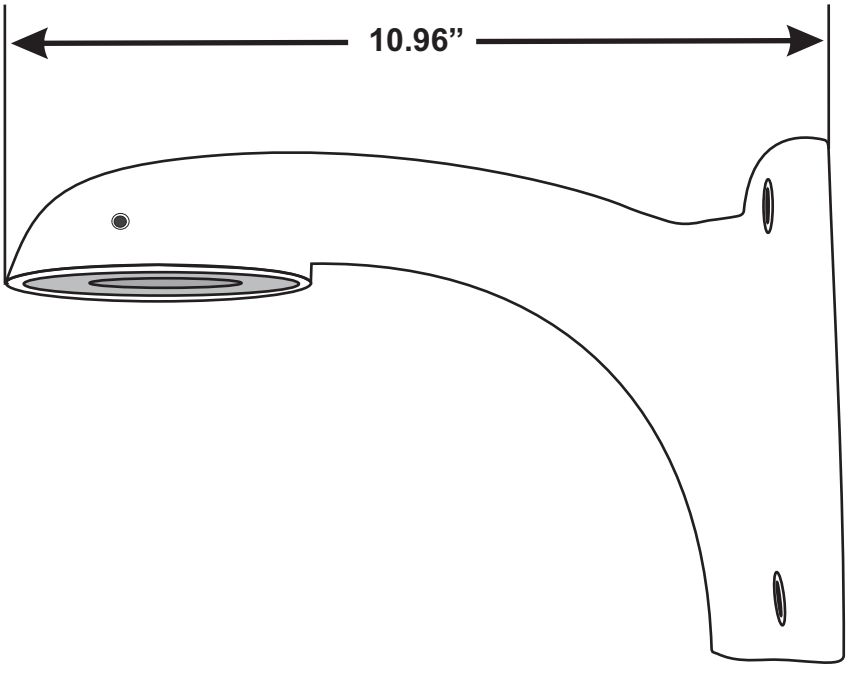


24VAC Power Supply



Measurements

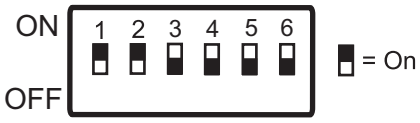




DIP Switch Settings
SW-1

Note:
These settings are also located on the bottom of the camera module. The purpose of these switches are to designate protocol, baud rate, and camera ID of each camera.

SW-1
Example Set for Pelco D, 2400



	Pelco Standards (1, 2, 3 & 4)				Baud Rate (5, 6)	
Examples (RS-485)	1	2	3	4	5	6
Pelco D (2400)	ON	ON	OFF	OFF	OFF	OFF
Pelco D (4800)	ON	ON	OFF	OFF	OFF	ON
Pelco D (9600)	ON	ON	OFF	OFF	ON	OFF
Pelco D (19200)	ON	ON	OFF	OFF	ON	ON
Pelco P (2400)	OFF	OFF	ON	OFF	OFF	OFF
Pelco P (4800)	OFF	OFF	ON	OFF	OFF	ON
Pelco P (9600)	OFF	OFF	ON	OFF	ON	OFF
Pelco P (19200)	OFF	OFF	ON	OFF	ON	ON
Auto Detect (2400)	OFF	OFF	OFF	OFF	OFF	OFF
Auto Detect (4800)	OFF	OFF	OFF	OFF	OFF	ON
Auto Detect (9600)	OFF	OFF	OFF	OFF	ON	OFF
Auto Detect (19200)	OFF	OFF	OFF	OFF	ON	ON

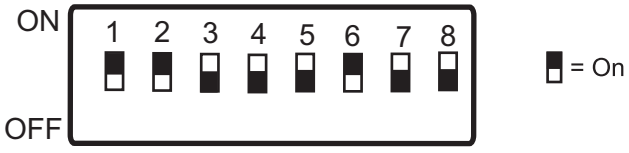
DIP Switch Settings
SW-2

Note:
On SW-2, the sum of the DIP Switch values when they are in the ON position equals the address of the dome device. Each dome in the system must have their own ID address.
For example, if DIP Switch 1, 2, and 6 are set to ON, the ID of the camera equals 35.

DIP Switch Values:

DIP Switch 1 = 1
DIP Switch 2 = 2
DIP Switch 3 = 4
DIP Switch 4 = 8
DIP Switch 5 = 16
DIP Switch 6 = 32
DIP Switch 7 = 64
DIP Switch 8 = 128

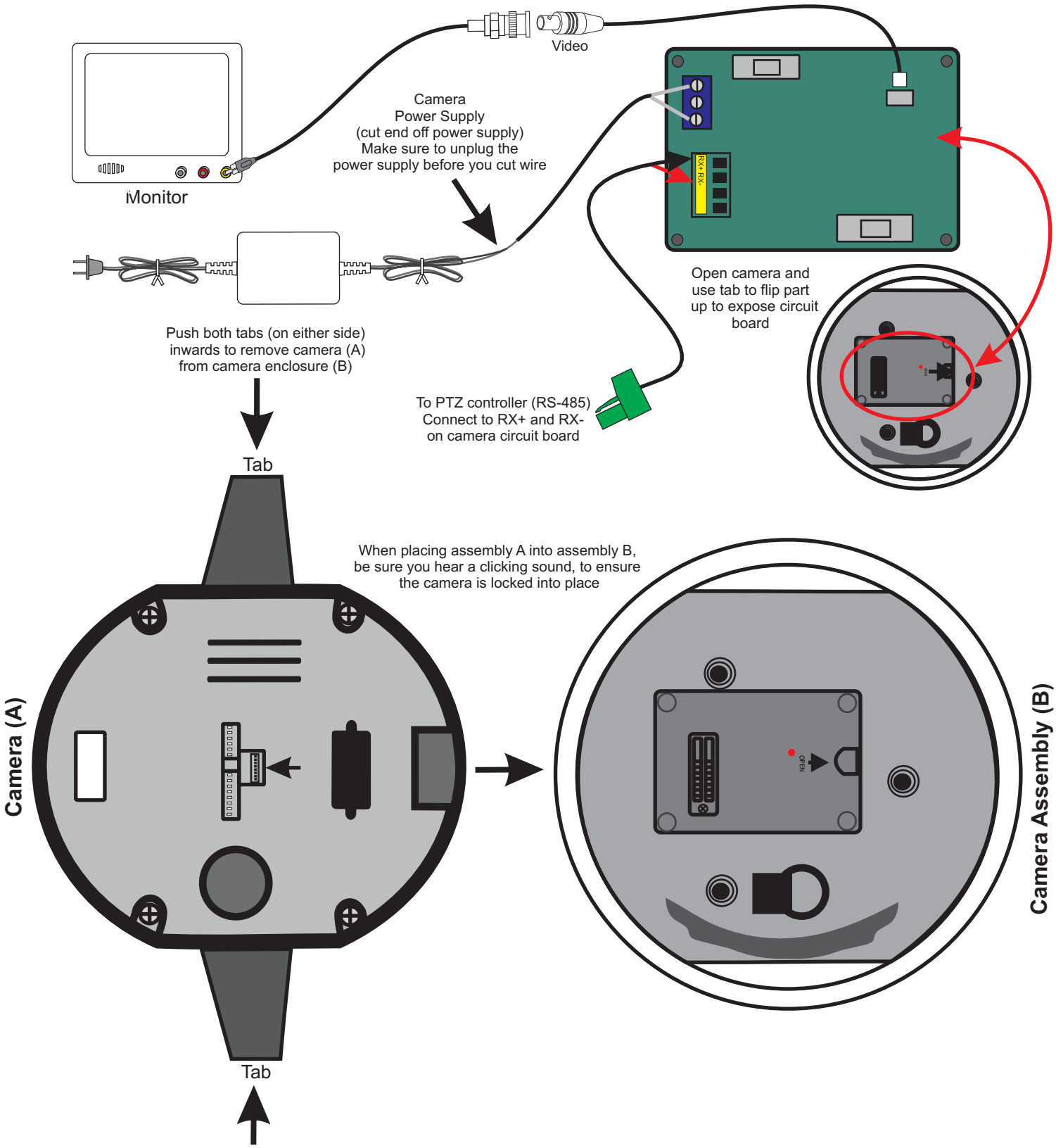
SW-2
(Example set to an ID of 35)



Assembly & Wiring of 6722

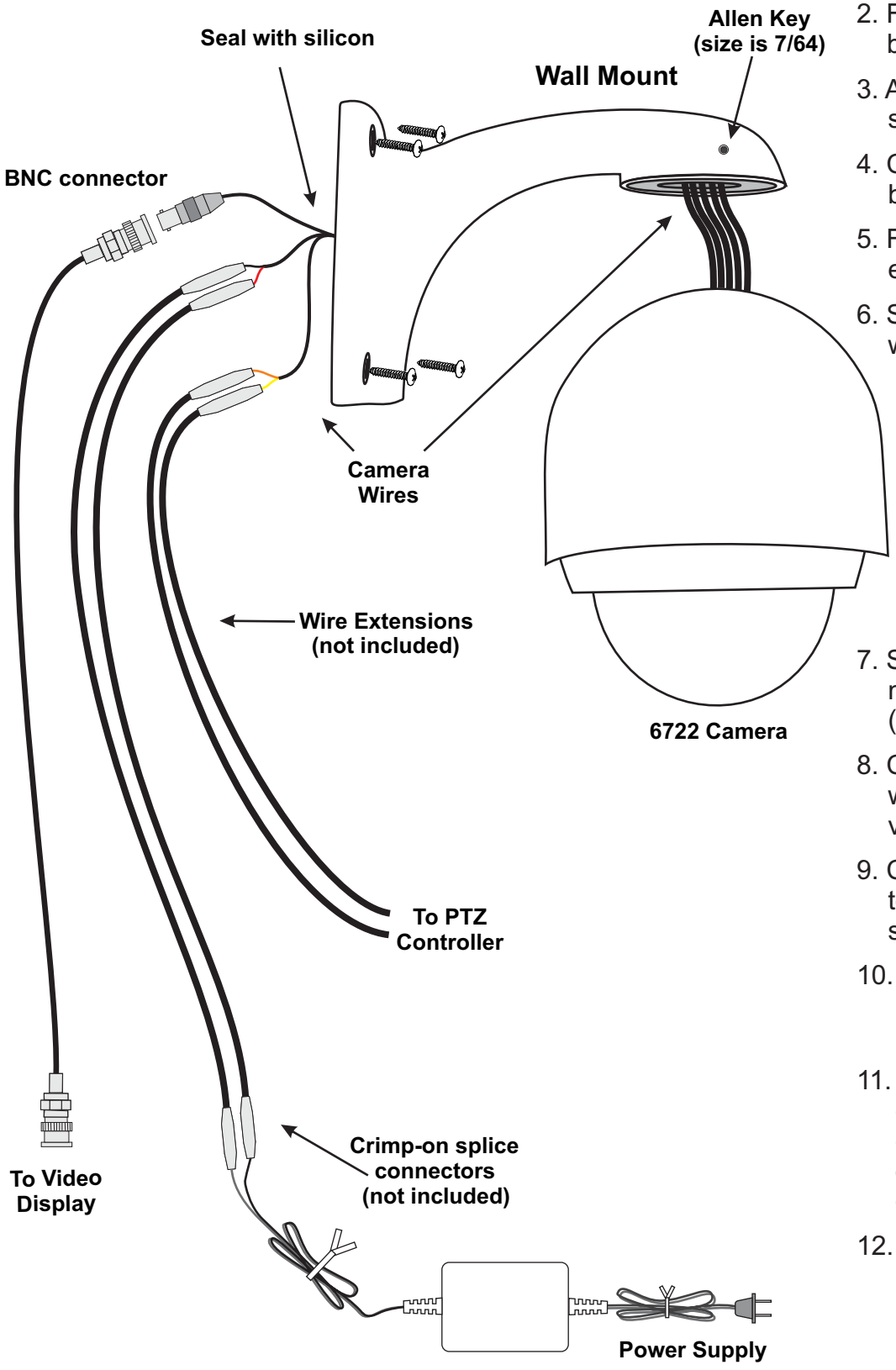
Important Note: Test camera prior to mounting

1.) Hook up power, video, and RS-485 connectors
2.) Tone wires to ensure proper communication
3.) Place camera module (A) into the 6722 camera assembly (B).
Make sure you secure the camera module (A) into camera assembly (B).
If properly secured, camera module (A) cannot be removed without pushing inwards in both tabs
Tabs are located on each side of the camera module (A).



Installation

Note: The installation of the 6722 camera is shown below.

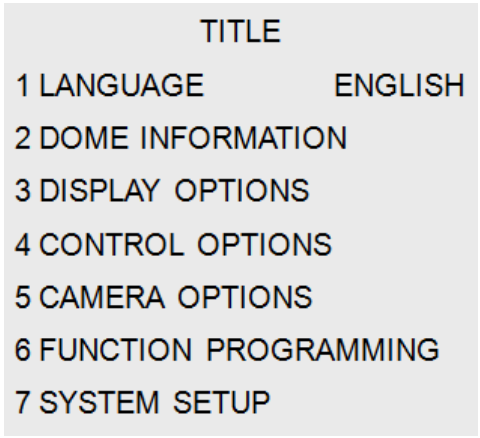


1. Drill a hole for wiring to exit the wall
2. Feed camera wires through the base of the wall mount
3. Attach mount to wall with screws
4. Connect camera pigtail to the base of the camera
5. Feed wires through camera enclosure
6. Screw camera enclosure onto wall mount
7. Secure the camera to the mount using the set screw (allen key size is 7/64)
8. Connect the camera wires to wire extensions or directly to a video display system
9. Connect the BNC video output to a monitor or distribution system
10. Connect RS-485 wires to PTZ controller such as a DVR or Web Server
11. Apply silicon sealant between camera mount and wall, side of cable entrance to mount, and on the screws to help prevent exposing camera to moisture
12. Plug power supply into wall

OSD (On Screen Display) Configuration

Menu Operation Instructions

To make a selection, enter preset 95 (on a Channel Vision DVR) or move the joystick on your PTZ controller in the Up or Down direction. The on-screen arrow points to the selected option. Using the joystick to the Left or Right position you can change the value of your selection or enter the submenu for the selected option. Press the escape button on the keyboard controller to exit the menu or return to the previous menu (one layer up).



Title Menu

1. **Language Setup**
   Used to change operation language of the camera

2. **Dome Information**
   Displays general dome information of the camera

3. **Display Options**
   Used to control display options of the camera

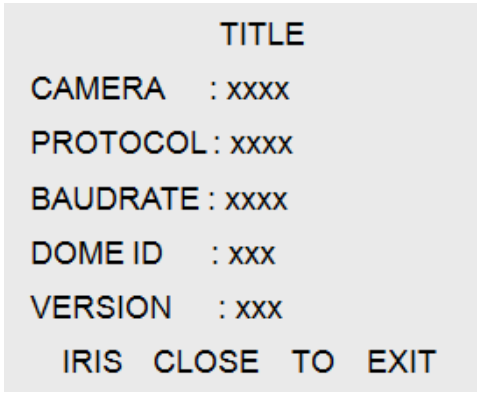
4. **Control Options**
   Used to set the pan or tilt of the camera manually or automatically in the camera

5. **Camera Options**
   Used to set camera functions

6. **Function Programming**
   Program and execute PTZ and Vectorscan etc

7. **System Setup**
   Used to configure general system setup, including, restoring default setup, clearing the memory, changing color system, and resetting the camera

Dome Information



Dome Information Menu

1. **Camera**
   Displays the camera name

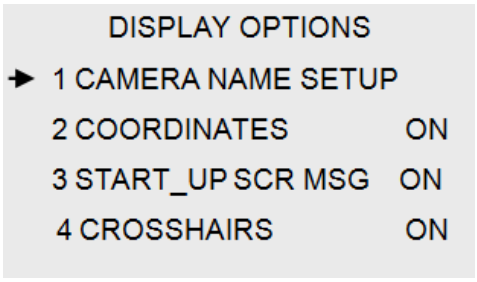
2. **Protocol**
   Displays the protocol of the camera

3. **Baudrate**
   Displays the baud rate of the camera

4. **Dome ID**
   Displays the dome ID (1-255)

5. **Version**
   Displays the software version

Display Options



Display Options Menu

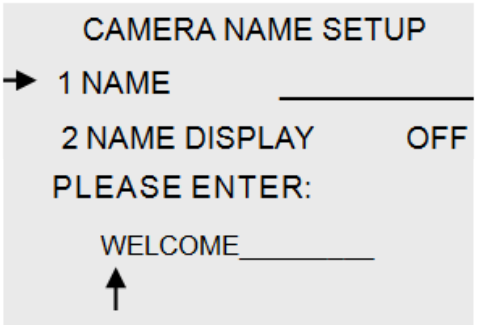
1. **Camera Name Setup**
   Used to change camera name

2. **Coordinates**
   Used to turn off/on coordinates on the displayed image

3. **Start_Up Scr Msg**
   Used to turn off/on start up messages

4. **Crosshairs**
   Used to turn the crosshairs off/on

Camera Name Setup

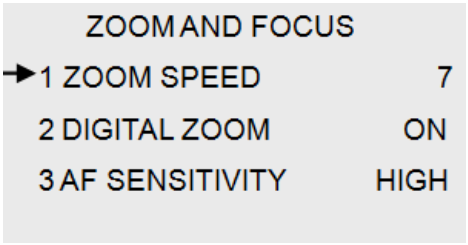


Dome Information Menu

1. **Name**
   Used to set camera name

2. **Name Display**
   Displays the protocol of the camera

Zoom and Focus



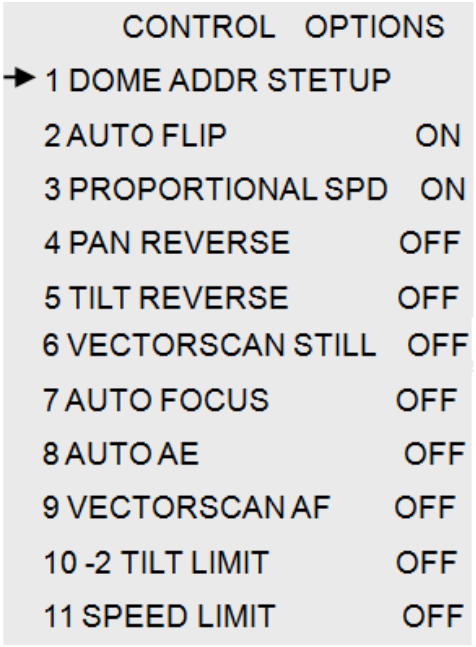
Zoom and Focus

1. **Zoom Speed**
   Used to change the zoom speed

2. **Digital Zoom**
   Used to turn digital zoom off/on

3. **AF Sensitivity**
   Used to adjust auto focus sensitivity

Control Options



Control Options

1. Dome Address Setup
Used to set dome address

2. Auto Flip
Used to turn auto-flip off/on

3. Proportional SPD
Used to turn proportional speed off/on

4. Pan Reverse
Used to turn pan reverse off/on

5. Tilt Reverse
Used to turn tilt reverse off/on

6. **Vectorscan Still**
Used to turn still vectorscan off/on

7. **Auto Focus**
Used to turn auto-focus off/on

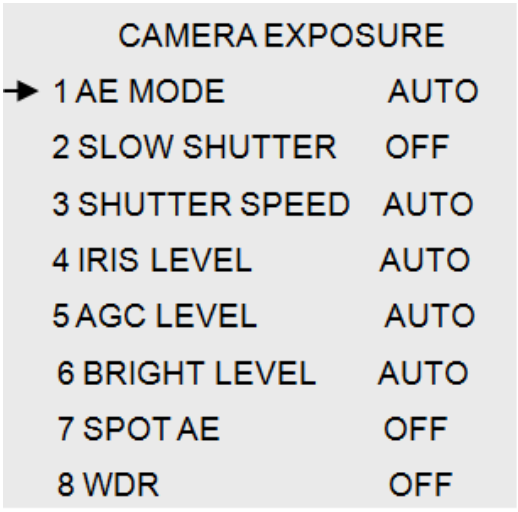
8. **Auto AE**
Used to turn auto-ae off/on

9. **Vectorscan AF**
Used to turn vectorscan auto focus off/on

10. **2 Tilt Limit**
Used to turn 2 tilt limit off/on

11. **Speed Limit**
Used to turn speed limit off/on

Camera Exposure



Camera Exposure

1. AE Mode
Used to control the AE mode of the camera

2. Slow Shutter
Used to turn off/on slow shutter speed of the camera

3. Shutter Speed
Used to set general shutter speed of the camera

4. Iris Level
Used to control the iris level of the camera

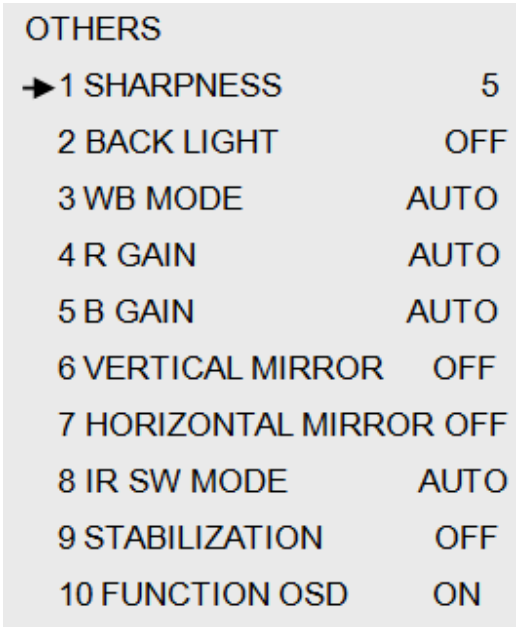
5. AGC Level
Used to set the AGC level of the camera

6. Bright Level
Used to adjust the brightness of the camera

7. Spot AE
Used to turn Spot AE off/on in the camera

8. WDR
Used to turn WDR (Wide Dynamic Rang) off/on in the camera

Others



Others

1. Sharpness
Used to adjust sharpness of the camera

2. Back Light
Used to turn back light off/on in the camera

3. WB Mode
Used to adjust WB mode in the camera

4. R Gain
Used to adjust R Gain in the camera

5. B Gain
Used to adjust B Gain in the camera

6. Vertical Mirror
Used to turn Vertical Mirror off/on in the camera

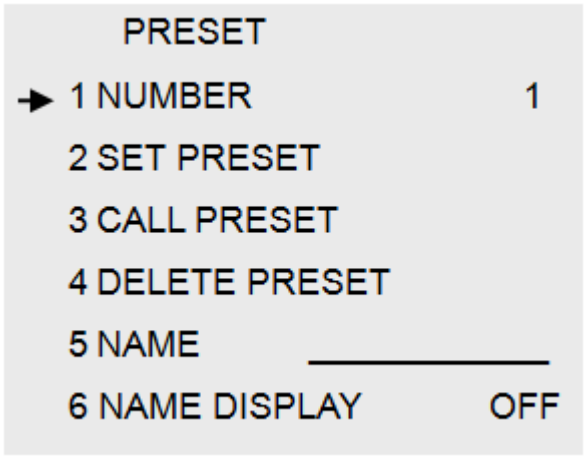
7. Horizontal Mirror
Used to turn Horizontal Mirror off/on in the camera

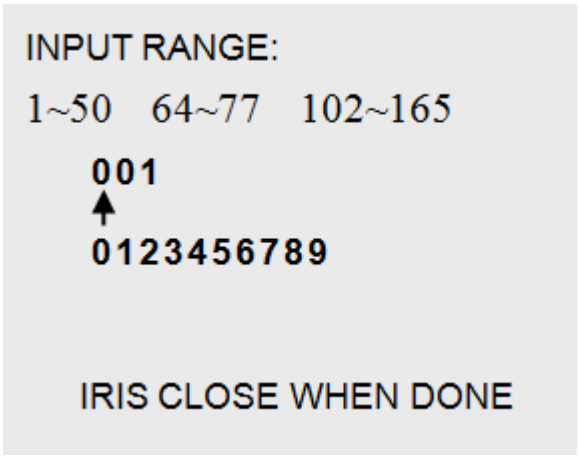
8. IR SW Mode
Used to adjust IR SW mode in the camera

9. Stabilization
Used to turn image stabilization off/on in the camera

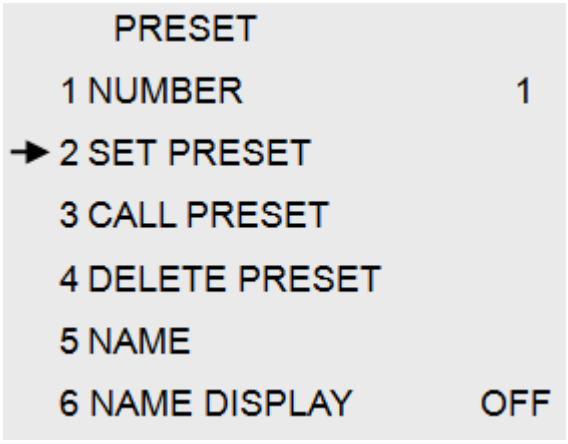
10. Function OSD
Used to turn function OSD (on screen display)off/on in the camera

Preset Menu

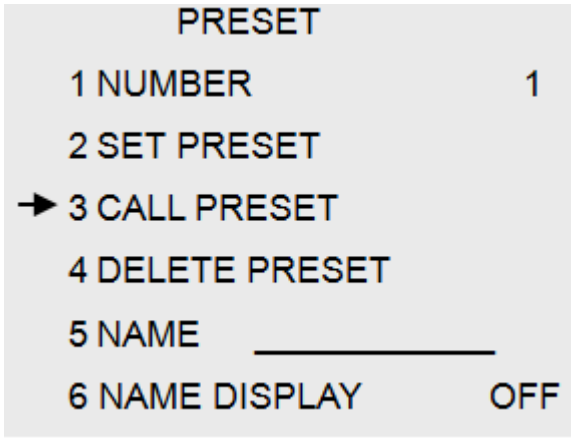




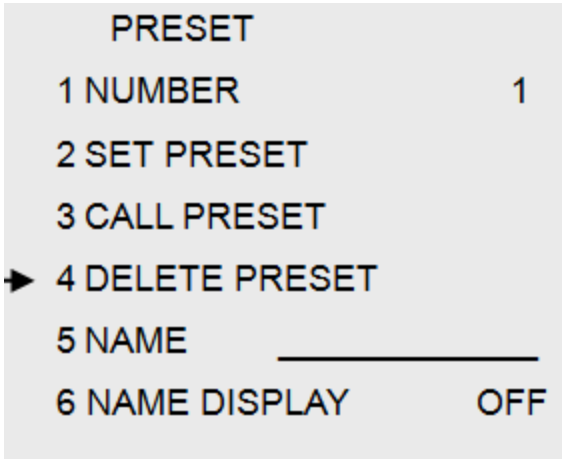
1. Number
Used to adjust the preset number



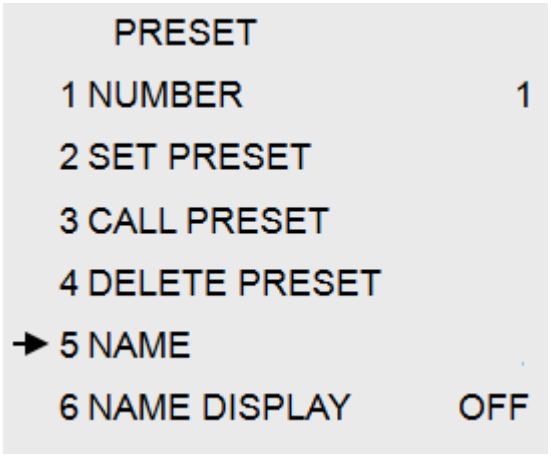
2. Set Preset
Used to set the preset



3. Call Preset
Used to call the preset



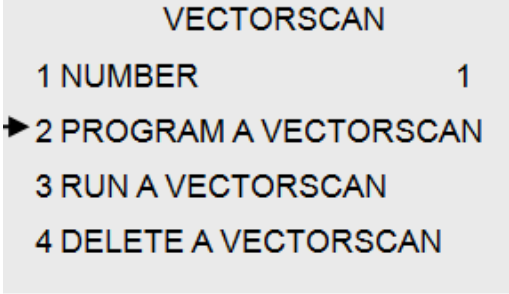
4. Delete Preset
Used to delete the preset

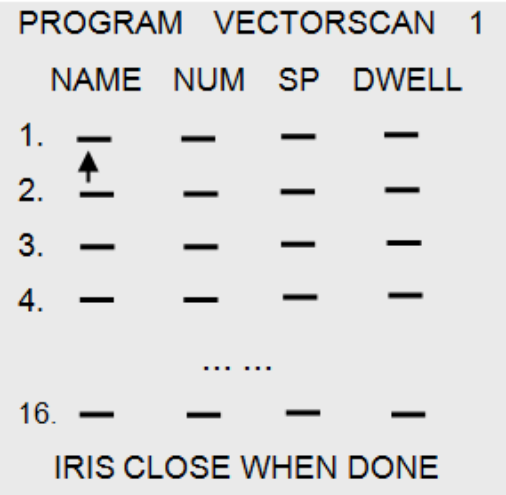


5. Name
Used to delete the preset

6. Name Display
Used to turn name display off/on

Vectorscan





Vectorscan

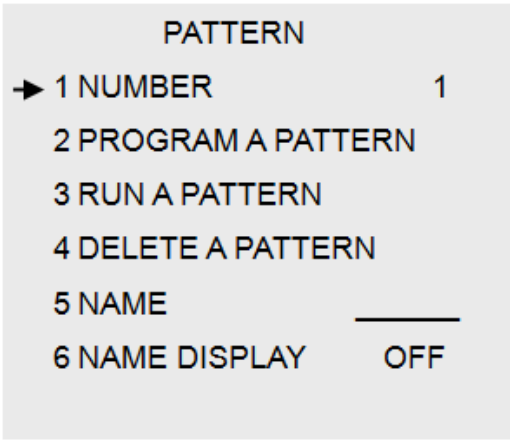
1. Number
Used to set the number of the Vectorscan

2. Program a Vectorscan
Used to program each Vectorscan. Each scan has a name, number, (NUM) speed, (SP) and dwell time.

3. Run a Vectorscan
Used to run a specific Vectorscan

4. Delete a Vectorscan
Used to delete a Vectorscan

Pattern



Pattern

1. Number
Used to set the number of a pattern

2. Program a Pattern
Used to program each pattern

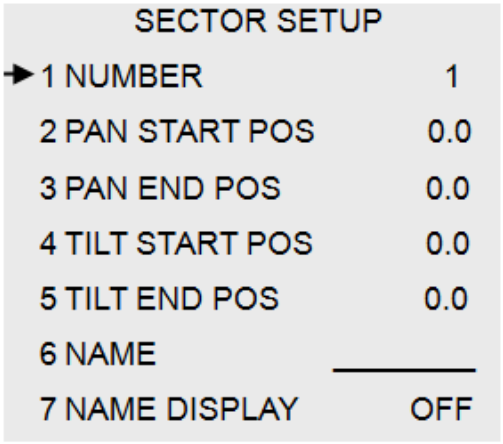
3. Run a Pattern
Used to run a specific pattern

4. Delete a Pattern
Used to delete a pattern

5. Name
Used to name a pattern

6. Name Display
Used to turn name display off/on

Sector Setup



Sector Setup

1. Number
Used to set the number of the Sector Setup

2. Pan Start POS
Used to designate the starting position of the pan

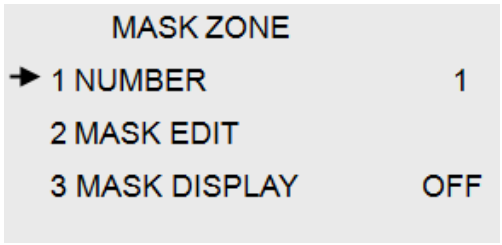
3. Pan End POS
Used to designate the ending position of the pan

4. Tilt Start POS
Used to designate the starting position of the tilt

5. Tilt End POS
Used to designate the ending position of the tilt

6. Name
Used to name the Sector Setup you are creating

7. Name Display
Used to turn off/on name display

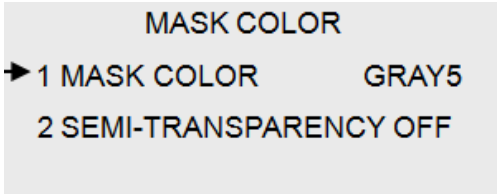


Mask Zone

1. Number
Used to set the number of Mask Zone

2. Mask Edit
Used to edit the masking area

3. Mask Display
Used to turn Mask Display off/on

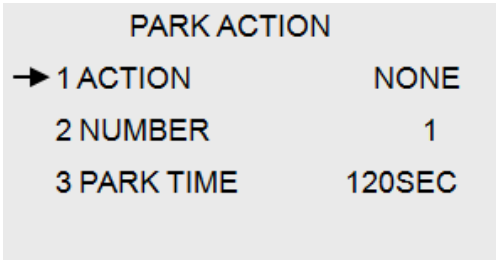


Mask Color

1. Mask Color
Used to set the color of the masked area

2. Semi-Transparency
Used to turn off/on semi transparency on masking

Motion



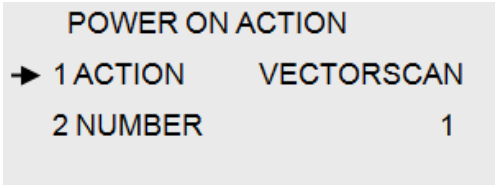
Park Action

1. Action
Used to specify park action
(None/Preset/VectorScan/Pattern/PanScan/AutoScan)

2. Number
Used to set park action number

3. Park Time
Used to designate the amount of time for each park

Power On Action

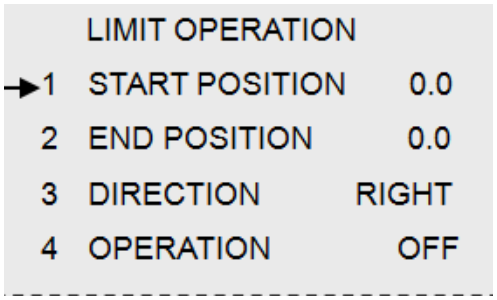


Power On Action

1. Action
Used to specify power on action
(None/Preset/VectorScan/Pattern/PanScan/AutoScan)

2. Number
Used to set action number

Limit Operation



Limit Operation

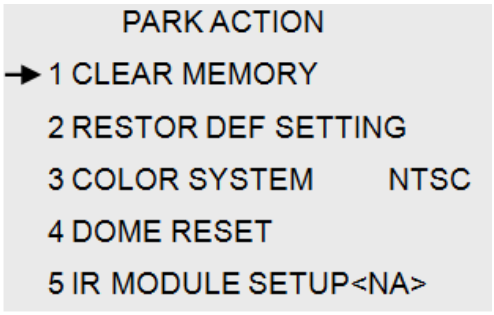
1. Start Position
Used to specify camera starting position

2. End Position
Used to specify camera ending position

3. Direction
Defines the direction of the camera boot up sequence

4. Operation
Enables or disables boot up test sequence

Park Action



Park Action

1. **Clear Memory**
   Used to clear the memory of the camera

2. **Restor Def Setting**
   Used to restore camera to factory default settings

3. **Color System**
   Defines the color system used in the camera
   Default is NTSC.

4. **Dome Reset**
   Allows you to reset the dome

5. **IR Module Setup <NA>**
   Not available in this camera

Special Camera Functions

The special functions listed below are only available when the 6722 is used with a Pelco standard PTZ controller.
Note: Not all PTZ controllers will support these commands.

		Keyboard Button Sequence	
No.	**Control Function**	**[CALL] + No.**	**[PRESET] + No.**
51	Pan-Tilt Compensation Control	Record line-scanning	Run Cruise Track
52		Start line-scanning	Set starting point for scanning
53			Set ending point for scanning
55	Camera Power Control	Power On	Power Off
56	Background Light Compensation*	On	Off
57	Camera Related OSD	Camera Menu on/off	Camera Function OSD on/off
58	Digital Zoom	On	Off
59	Focus	Auto	Manual
60	Iris	Auto	Manual
61	White Balance Mode*	Auto	Manual
62		Indoor	Outdoor
63		ATW	One Push WB
79	Set Line Scanning Mode	Long Distance	Short Distance
80	Run Pattern	Run Pattern One	
81		Run Pattern Two	
82		Run Pattern Three	

Special Camera Functions, cont.

		Keyboard Button Sequence	
No.	**Control Function**	**[CALL] + No.**	**[PRESET] + No.**
83	Record Vectorscan	Run Vectorscan One	
84		Run Vectorscan Two	
85		Run Vectorscan Three	
86		Run Vectorscan Four	
87		Run Vectorscan Five	
88		Run Vectorscan Six	
89	Freeze Image	On	Off
91	Dynamic Preset Point	Call Dynamic Preset Point	
94	Dome Reset	Reset Dome	
95	Main Menu	Call Main Menu	
96	Set Auto Flip	On	Off
101	Continuous Pan	On	

Troubleshooting

Problem	Possible Cause	Solution
No motion and no video	Power supply is disconnected or damaged	Check power supply. Replace if needed
Normal Video output, but abnormal motion	Power supply voltage is too low	Make sure to use the correct power supply Move the power supply closer to the camera
Have motion control, but no video	Faulty coax connection	Check with cable tester or verify cable by sending known good video signal through it
Normal video output, but no motion control	Camera protocol does not match controller	Check the DIP Switches

6722 Specifications

Operating Voltage**:**	24VAC 3000mA
Power Consumption:	2.8 Watts (no heater or fan) 5.1 Watts maximum
CCD Size:	1/4” Super HAD color CCD
Total Pixels:	811 (H) x 508 (V)
Effective Pixels:	768 (H) x 494 (V)
Optics:	27X, F=3.5 to 94.5mm (F 1.6 to 2.9)
Digital Zoom:	Off/On (Maximum 12x)
Field of View:	(H) 55.5 Degrees (Wide) to 2.24 Degrees (Tele) (V) 42.5 Degrees (Wide) to 1.79 Degrees (Tele)
Scanning System:	2:1 Interlace
Synchronization:	Internal
Frequency:	H: 15.734 Khz / V: 59.94 Hz
Resolution:	650 TV Lines (Color)
Min. Illumination:	0.4 Lux/F1.6 (50IRE) Color
S/N Ratio: (Y signal)	50dB
Video Output:	CVBS: 1.0Vp-p / 75 Ohms
Focus:	Auto/Manual / One Push
Zoom Speed:	1.8 seconds (fast) 2.3 seconds (middle) 4.5 seconds (slow)
Iris Control:	Auto/Manual
Lens Initialize:	Built-In
Camera Title:	On/Off
Camera ID:	255 Possible IDs
Day & Night:	Auto / Color/ B/W
Gain Control:	Low / Medium / High / Manual / Off
White Balance:	ATW / AWC / Manual / Indoor / Outdoor
Backlight:	BLC / HLC / OFF
Electronic Shutter:	Auto / Manual / A.FLK
O.S.D. :	Built in
Motion Detection:	Yes; On / Off (output via communication)
Control Output:	RS-232C TTL Level (2400, 4800, 9600, 19200, 38400, 57600, 115200 bps
SSNR:	Low / Medium / High / Off
Privacy Function:	On / Off (8 selectable areas)
Flip:	On / Off
Mirror:	On / Off
Dis:	On / Off
Preset:	128 Possible presets
Operating temperature:	-40°C to 50°C
Case Rating:	IP66

*Specifications subject to change without notice.

CHANNEL VISION™

1 Year Limited Warranty

Channel Vision Technology will repair or replace any defect in material or workmanship which occurs during normal use of this product with new or rebuilt parts, free of charge in the USA, for one year from the date of original purchase. This is a no hassle warranty with no mail in warranty card needed. This warranty does not cover damages in shipment, failures caused by other products not supplied by Channel Vision Technology, or failures due to accident, misuse, abuse, or alteration of the equipment. This warranty is extended only to the original purchaser when purchased through an authorized reseller. A purchase receipt, invoice, or other proof of original purchase date will be required before warranty repairs are provided.

Mail in service can be obtained during the warranty period by calling (800) 840-0288 toll free. A Return Authorization number must be obtained in advance and can be marked on the outside of the shipping carton.

This warranty gives you specific legal rights and you may have other rights (which vary from state to state). If a problem with this product develops during or after the warranty period, please contact Channel Vision Technology, your dealer or any factory-authorized service center.

Channel Vision products are not intended for use in medical, lifesaving, life sustaining or critical environment applications. Channel Vision customers using or selling Channel Vision products for use in such applications do so at their own risk and agree to fully indemnify Channel Vision for any damages resulting from such improper use or sale.

FC Tested To Comply With FCC Standards

CE

RoHS

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

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