



### Features

- \* Greater than 480 Lines of Resolution
- \* 18x12, 22x12, 23x12, and 26x12 zoom available
- \* Up to 80 presets with 24 characters each
- \* Auto iris, auto focus, backlight compensation
- \* Wide dynamic range
- \* Proportional high-speed pan and tilt and automatic flip
- \* Advanced 1/4" DSP CCD camera
- \* Housing features built-in non-volatile memory for automatic download to new camera
- \* Password protection
- \* 8 privacy masking zones
- \* 16 video blanking sectors
- \* 3 programmable patterns,
- \* Automatic home position
- \* Internal multi-protocol receiver/driver
- \* PTZ Data including Manchester, RS-422 and RS-485
- \* 8 alarm inputs with programmable relay outputs.
- \* Built-in surge and lightning protection
- \* Anti-ice & Anti-mist, built-in heater and air circulating system available
- \* Easy to install – quick and simple electrical connections
- \* Exceeds IP66 and NEMA 4X Specifications
- \* Vandal-resistant options available (polycarbonate)
- \* Nitrogen Pressurized dome option available (V1750 series)
- \* Multiple languages supported

### Order information

V1745A	Outdoor dome camera, NTSC color, >480 TVL, 18x12, 1.0 lux
V1746A	Outdoor dome camera, NTSC color, >480 TVL, 22x12, 0.1 lux
V1747A	Outdoor dome camera, NTSC color, >480 TVL, 23x12, day(color, 0.1lux)/night(black, 0.01lux)
V1748A	Outdoor dome camera, NTSC color, >480 TVL, 26x12, day(color, 1.0 or 0.07 lux)/night(black, 0.15 or 0.01 lux)

Please consult the part number guide on page 2 for complete part numbering information.

### Dome Installation Mounts

For use with V1740 series outdoor domes

Model	Description
V1761	Wall mount (complete set)
V1762	Corner mount (complete set)
V1763	Pole mount (complete set)
V1764	Pendant mount (complete set)
V1765	Parapet (over the roof) mount (complete set)

### Analog Dome Camera Part Numbering System:

Type	Bubble	18x Color 0.7 lux	22x Color 0.1 lux	23x Color/BW 0.01 lux	26x Color/BW 0.01 lux
Indoor Drop Ceiling NTSC Camera	Standard Clear	V1725A-C0C2C	V1726A-C0C2C	V1727A-C0C2C	V1728A-C0C2C
	Standard Smoked	V1725A-C0S2C	V1726A-C0S2C	V1727A-C0S2C	V1728A-C0S2C
	Vandal-Resistant Clear	V1725A-C0C3C	V1726A-C0C3C	V1727A-C0C3C	V1728A-C0C3C
	Vandal-Resistant Smoked	V1725A-C0S3C	V1726A-C0S3C	V1727A-C0S3C	V1728A-C0S3C
Indoor Drop Ceiling PAL Camera	Standard Clear	V1725A-C1C2C	V1726A-C1C2C	V1727A-C1C2C	V1728A-C1C2C
	Standard Smoked	V1725A-C1S2C	V1726A-C1S2C	V1727A-C1S2C	V1728A-C1S2C
	Vandal-Resistant Clear	V1725A-C1C3C	V1726A-C1C3C	V1727A-C1C3C	V1728A-C1C3C
	Vandal-Resistant Smoked	V1725A-C1S3C	V1726A-C1S3C	V1727A-C1S3C	V1728A-C1S3C
Indoor Bracket Mount NTSC Camera	Standard Clear	V1725A-C0C2B	V1726A-C0C2B	V1727A-C0C2B	V1728A-C0C2B
	Standard Smoked	V1725A-C0S2B	V1726A-C0S2B	V1727A-C0S2B	V1728A-C0S2B
	Vandal-Resistant Clear	V1725A-C0C3B	V1726A-C0C3B	V1727A-C0C3B	V1728A-C0C3B
	Vandal-Resistant Smoked	V1725A-C0S3B	V1726A-C0S3B	V1727A-C0S3B	V1728A-C0S3B
Indoor Bracket Mount PAL Camera	Standard Clear	V1725A-C1C2B	V1726A-C1C2B	V1727A-C1C2B	V1728A-C1C2B
	Standard Smoked	V1725A-C1S2B	V1726A-C1S2B	V1727A-C1S2B	V1728A-C1S2B
	Vandal-Resistant Clear	V1725A-C1C3B	V1726A-C1C3B	V1727A-C1C3B	V1728A-C1C3B
	Vandal-Resistant Smoked	V1725A-C1S3B	V1726A-C1S3B	V1727A-C1S3B	V1728A-C1S3B
Outdoor Drop Ceiling NTSC Camera	Standard Clear	V1745A-C0C2C	V1746A-C0C2C	V1747A-C0C2C	V1748A-C0C2C
	Standard Smoked	V1745A-C0S2C	V1746A-C0S2C	V1747A-C0S2C	V1748A-C0S2C
	Vandal-Resistant Clear	V1745A-C0C3C	V1746A-C0C3C	V1747A-C0C3C	V1748A-C0C3C
	Vandal-Resistant Smoked	V1745A-C0S3C	V1746A-C0S3C	V1747A-C0S3C	V1748A-C0S3C
Outdoor Drop Ceiling PAL Camera	Standard Clear	V1745A-C0C2C	V1746A-C0C2C	V1747A-C0C2C	V1748A-C0C2C
	Standard Smoked	V1745A-C0S2C	V1746A-C0S2C	V1747A-C0S2C	V1748A-C0S2C
	Vandal-Resistant Clear	V1745A-C0C3C	V1746A-C0C3C	V1747A-C0C3C	V1748A-C0C3C
	Vandal-Resistant Smoked	V1745A-C0S3C	V1746A-C0S3C	V1747A-C0S3C	V1748A-C0S3C
Outdoor Bracket Mount NTSC Camera	Standard Clear	V1745A-C0C2B	V1746A-C0C2B	V1747A-C0C2B	V1748A-C0C2B
	Standard Smoked	V1745A-C0S2B	V1746A-C0S2B	V1747A-C0S2B	V1748A-C0S2B
	Vandal-Resistant Clear	V1745A-C0C3B	V1746A-C0C3B	V1747A-C0C3B	V1748A-C0C3B
	Vandal-Resistant Smoked	V1745A-C0S3B	V1746A-C0S3B	V1747A-C0S3B	V1748A-C0S3B
Outdoor Bracket Mount PAL Camera	Standard Clear	V1745A-C0C2B	V1746A-C0C2B	V1747A-C0C2B	V1748A-C0C2B
	Standard Smoked	V1745A-C0S2B	V1746A-C0S2B	V1747A-C0S2B	V1748A-C0S2B
	Vandal-Resistant Clear	V1745A-C0C3B	V1746A-C0C3B	V1747A-C0C3B	V1748A-C0C3B
	Vandal-Resistant Smoked	V1745A-C0S3B	V1746A-C0S3B	V1747A-C0S3B	V1748A-C0S3B

#### Part Number extensions for Power Input selection:

12VDC	24VAC	120A	240A	Ex: 24VAC input:	Ex: 24VAC input:
5	6	7	8	V1745A-C0C2B6	V1745A-C0C2B6



### Optional Camera Parameters

Model	1745 (NTSC/PAL)	1746 (NTSC/PAL)	1747 (NTSC/PAL)	1748 (NTSC/PAL)
	Color	Color	Color Day-B/W night switch	Color Day-B/W night switch
Sync Mode	Internal	Internal/External	Internal	Internal
Image Sensor	1/4" CCD			
Scanning System	2:1 Interlacing			
Focal Distance	0.01m (wide) - 1.0 (tele)			
Pixels	470K	470K	470K	680K (NTSC); 800K (PAL)
Resolution	>480 TVL	>480 TVL	>480 TVL/550 TVL	>480 TVL/550 TVL
Wide Dynamic Range	Off/On	Off/On	Off/On	Off/On
Privacy Masking	Off/On (2 Zones)	Off/On (8 Zones)	Off/On (8 Zones)	Off/On (8 Zones)
Video Blanking	Off/On (16 sectors)			
Mirror Image Functioning	Off/On			
Removable IR Cut Filter	n/a	n/a	Off/On, 1/3-1/4000	Off/On, 1/3-1/4000
Sensitivity	1.0 Lux	0.1 Lux	Color (Day): 0.1 Lux; Mono (Night): 0.01 Lux	Color (Day): 1.0 Lux (NTSC 1/60sec, PAL 1/50 sec) or 0.07 Lux (NTSC 1/4 sec, PAL 1/3 sec); Mono (Night): 0.15 Lux (NTSC 1/60 sec, PAL 1/50 sec) or 0.01 Lux (NTSC 1/4 sec, PAL 1/3 sec)
Scene Memory Function	n/a	n/a	Off/On	Off/On
DSP	DSP5	DSP5	DSP6	DSP6
Focus	Auto/Manual	Auto/Manual	Auto/Manual	Auto/Manual
Iris	Auto/Manual	Auto/Manual	Auto/Manual	Auto/Manual
Optical Zoom	18x	22x	23x	26x
Digital Zoom	12x			
Zoom Rate	216X	264X	276X	312X
Zoom Length	4.1 - 73.8 mm	4 - 88 mm	3.6 - 82.8 mm	3.5 - 91.0 mm
S/N Ratio	>50dB	>50dB	>50dB	>50dB
Angle of View	Wide 48°/Tele 2.7°	Wide 47°/Tele 2.2°	Wide 54°/Tele 2.5°	Wide 42.2°/Tele 1.6°
B.L.C.	Auto			
White Balance	Auto/Manual			
Gain Control	Auto			
Signal Format	Auto			
S/N	> 50dB			
Digital Slow Shutter	Yes			
Video Output	1.0 ± 0.2Vp-p			
Input Voltage	12VDC / 24VAC			
Temperature Ratings	Operating: -40-60°C		Storage: -40-70°C	

### Product Description

Infinova's V1740 series represents a state-of-the-art line of outdoor, programmable dome cameras. This leading dome system meets the demanding requirements of the CCTV security industry and includes many innovative features.

The internal multi-protocol receiver allows these domes to be compatible with control site equipment from Infinova, such as the V2109 and V2117 keyboards, and Infinova matrix switchers; as well as equipment from 3rd party manufacturers. Infinova Domes feature built-in memory to store camera and dome settings, including labels, presets, patterns, and zones. These settings are automatically downloaded if a new dome drive is installed.

Choose between 18x12, 22x12, 23x12, and 26x12 optical/digital zoom, to find a camera that will meet your project's requirements. Digital Signal Processing technology provides enhanced clarity, color and detail. The day/night cameras, V1747 and V1748, provide usable images even in extremely low light conditions through the use of a mechanical IR filter.. Separate definable privacy zones can be set by administrators to prevent users from viewing restricted areas. The dome's direction indicators; which can be displayed on the monitor, denote the direction the dome is pointing and the direction in which it is moving.

Password protection prevents unauthorized users from changing the system setup, as well as other sensitive dome settings. The dome's "home position" feature allows users to establish a default view or pattern for the dome when it is not being controlled. The digital slow shutter (D.S.S) allows a long exposure time of 1/2 second, this translates into a higher sensitivity and minimum illumination of only 0.03 lux (color, 1/2 s). Color data is captured and stored by the dome, allowing a user to see things that are typically not visible when using a standard color video camera.

Infinova's variable speed capabilities range from a smooth, fast pan motion of 280° per second to a low speed of 0.5° per second. The system is capable of 360° rotation and has an "auto flip" feature that allows the dome to rotate 180° and reposition itself for uninterrupted viewing of any subject that passes directly beneath the dome.

### **1.0 Description:**

The high-speed programmable dome camera shall be Infinova's V1740 series outdoor dome or equivalent. The dome described shall be an outdoor use dome camera with full-range variable speed PTZ, an advanced DSP CCD camera, and a built-in multi-protocol receiver/driver.

### **2.0 General Requirements:**

1. 18x12, 22x12, 23x12, and 26x12 zoom ratios available
2. High-speed pan and tilt operation including an auto-flip feature to ensure continuous control
3. Internal multi-protocol receiver/driver
4. Digital control with integrated CPU and SD RAM
5. Auto iris, auto focus, backlight compensation
6. Built-in non-volatile memory camera back-box to store all configurable options for auto-download to new camera.
7. Camera shall be hardened for outdoor use
8. Built-in heater and fan to regulate temperature inside housing
9. Advanced DSP CCD camera
10. 16 programmable areas, 8 privacy zones, automatic home position
11. 8 alarm inputs and 4 programmable auxiliary outputs
12. Camera shall meet UL, cUL, CE, FCC, and ISO9000 standards and be fully certified under each.
13. Operational temperatures shall be -40 to 74°C and humidity from 0 to 90% non-condensing.

### **3.0 Function and Features:**

1. The dome shall provide discreet surveillance through various configurations including:
  - a. Long Arm Wall Mount
  - b. Corner Mount
  - c. Pole Mount
  - d. Pendant Mount
  - e. Parapet Mount
2. Dome shall provide 360° continuous rotation
3. The dome camera shall have a manual pan speed of 0.5 - 100° per second (based on zoom position)
4. The dome shall have a present pan/tilt speed of 280° per second, maximum.
5. The dome shall have a tilt range of 0-90° with autoflip to provide full 180° tilt view
6. Pan/Tilt accuracy shall be precise to ± 1°
7. Zoom/Focus shall be accurate to ± 0.5%
8. The dome shall offer presets for different control code formats (see section 5 for details)
  - a. Manchester code – 64 presets
  - b. RS-232 – 80 presets

- c. RS-422 – 80 presets
- d. RS-485 – 80 presets
- 9. Auto-cruise sequences can store up to 32 presets
- 10. Auto scan and pattern functions
- 11. 4 pattern routes available, each for up to 180 seconds of route memorization
- 12. Dome shall provide 8 alarm inputs (photo-couple contacts/ 7mA at 12VDC)
- 13. Dome shall provide 4 alarm outputs (open collector drivers at 12VDC, 50mA)
- 14. The dome shall feature 16 programmable areas, 3 programmable patterns, and 8 programmable privacy zones.
- 15. Dome shall be equipped with an auto-flip feature that allows for continuous smooth rotation
- 16. Dome shall feature Remote V-phase adjustment and an built in sync generator

### 4.0 Camera Parameters:

Model	1745 (NTSC/PAL)	1746 (NTSC/PAL)	1747 (NTSC/PAL)	1748 (NTSC/PAL)
	Color	Color	Color Day-B/W night switch	Color Day-B/W night switch
Sync Mode	Internal	Internal/External	Internal	Internal
Image Sensor	1/4" CCD			
Scanning System	2:1 Interlacing			
Focal Distance	0.01m (wide) - 1.0 (tele)			
Pixels	470K	470K	470K	680K (NTSC); 800K (PAL)
Resolution	>480 TVL	>480 TVL	>480 TVL/550 TVL	>480 TVL/550 TVL
Wide Dynamic Range	Off/On	Off/On	Off/On	Off/On
Privacy Masking	Off/On (2 Zones)	Off/On (8 Zones)	Off/On (8 Zones)	Off/On (8 Zones)
Video Blanking	Off/On (16 sectors)			
Mirror Image Functioning	Off/On			
Removable IR Cut Filter	n/a	n/a	Off/On, 1/3-1/4000	Off/On, 1/3-1/4000
Sensitivity	1.0 Lux	0.1 Lux	Color (Day): 0.1 Lux; Mono (Night): 0.01 Lux	Color (Day): 1.0 Lux (NTSC 1/60sec, PAL 1/50 sec) or 0.07 Lux (NTSC 1/4 sec, PAL 1/3 sec); Mono (Night): 0.15 Lux (NTSC 1/60 sec, PAL 1/50 sec) or 0.01 Lux (NTSC 1/4 sec, PAL 1/3 sec)
Scene Memory Function	n/a	n/a	Off/On	Off/On
DSP	DSP5	DSP5	DSP6	DSP6
Focus	Auto/Manual	Auto/Manual	Auto/Manual	Auto/Manual
Iris	Auto/Manual	Auto/Manual	Auto/Manual	Auto/Manual
Optical Zoom	18x	22x	23x	26x
Digital Zoom	12x			
Zoom Rate	216X	264X	276X	312X
Zoom Length	4.1 - 73.8 mm	4 - 88 mm	3.6 - 82.8 mm	3.5 - 91.0 mm
S/N Ratio	>50dB	>50dB	>50dB	>50dB
Angle of View	Wide 48°/Tele 2.7°	Wide 47°/Tele 2.2°	Wide 54°/Tele 2.5°	Wide 42.2°/Tele 1.6°
B.L.C.	Auto			
White Balance	Auto/Manual			
Gain Control	Auto			
Signal Format	Auto			
S/N	> 50dB			
Digital Slow Shutter	Yes			
Video Output	1.0 ± 0.2Vp-p			
Input Voltage	12VDC / 24VAC			
Temperature Ratings	Operating: -40-60°C		Storage: -40-70°C	

### **5.0 Presets and Programs:**

1. The dome shall be controllable from any Infinova system keyboard and matrix switcher
2. The dome shall include a multi-protocol receiver/driver to ensure compatibility with control codes of other manufacturers
3. Sixty-four (64) programmable presets shall be available for Manchester Code input.
4. 80 programmable presets shall be available for RS-232, RS-422, or RS-485 input.
5. Presets shall be programmable through keyboard, on-screen menu, or available graphical user interface (GUI) software.
6. Presets shall feature editable titles
7. Auto cruise feature shall enable the camera to repeatedly skip from one preset to another in a programmed order
8. Auto scan feature shall enable a user to set an area for the camera to automatically pan through at a set speed
9. Three (3) pattern routes shall allow the dome to memorize pan/tilt movements and lens commands for up to 180 seconds and replicate them automatically

### **6.0 Monitor Display**

1. Upon power up a diagnostic on-screen display shall appear including:
  - a. Camera serial number
  - b. Camera ID
  - c. Baud rate
  - d. Protocol
  - e. Model
  - f. Version
2. Any open menu shall disappear after 30 seconds if no operation is conducted
3. Monitor display must be presented in white characters outlined in black
4. All menu settings shall be saved in non-volatile memory for protection against power outages
5. Main menu choices shall include:
  - a. System info
    - \* Allows user to configure the entire system including site info, password, and display
  - b. Lens parameters
    - \* Allows user to configure lens options such as zoom speed and iris controls.
  - c. Camera parameters
    - \* Allows user to configure camera options such as white balance and shutter speed
  - d. Pan/Tilt parameters
    - \* Allows user to configure pan/tilt options such as speed and auto-stop

- e. Auto running
  - \* Allows user to program:
    - 1. Presets
    - 2. Tours
    - 3. Patterns
    - 4. Auto scan
    - 5. Zone setting
- f. Exit

**7.0 Connections:**

- 1. Video output shall be connected via 0.5 – 2.0V p-p BNC composite connectors
- 2. Data input shall be via Manchester Code, RS-422 or RS-485 data.

**8.0 Compliance and Certification:**

- 1. The outdoor dome camera shall be CE and UL approved
- 2. Video signal format shall be NTSC & CCIR/PAL, 1.0Vp-p, 75 Ohm.
- 3. This product shall be ISO 9001:2000 certified.

**9.0 Power:**

- 1. The outdoor dome camera shall operate on a provided power supply at:
  - a. 12VDC, 24VAC
  - b. A frequency of 60 to 50 Hz
  - c. A normal power requirement of 50W
  - d. Power on current of 2 amps

**10.0 Warranty**

The outdoor dome camera shall be provided with a manufacturer's warranty that shall be extended only to the original purchaser and for the original installation for a period of two (2) years from date of original shipment.

Specifications are subject to change without notice.