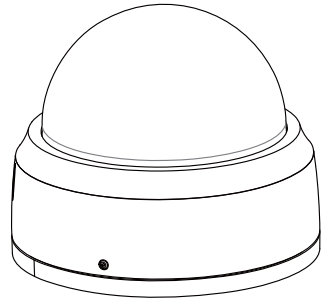


High Resolution Indoor Camera User Guide



**690HTVL-E Day / Night
Color Camera**

About this Sheet

Thank you for purchasing this product. Before operating this unit, please read this sheet carefully. For detailed descriptions about the unit's specification, please refer to the following content. For any information or inquiry, please contact your local dealer.

Information provided in this sheet include package contents, regulatory compliance, camera specifications, lens specifications, camera illustrations and so on so as to help you know better about this unit. Please note that the specifications and appearance of this unit are subject to change for further improvements without prior notice.

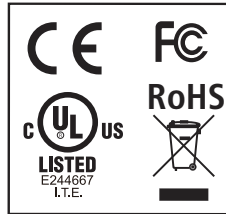
Hardware Kit Contents

- Quick install adaptor x 1 (Optional)
- Torx driver x 1
- D5 fixing screws x 3
- T6 fixing screw (for T6 fixing screw) x 1
- Wall plugs x 3
- Power lead x 1
- Cable entry sealing plug (3/4" ,for dome base use) x 1

V531-DK003-500
Ver.04/2011

Regulatory Compliance

Emissions	ANSI C63.4 CISPR 11 CISPR 22 EN50130-4 EN55011 EN55022 FCC Part 15 Class B ICES-003
Safety	CSA C22.2 No. 60950-1, 2nd Edition UL 60950-1, 2nd Edition,



FCC COMPLIANCE:
This equipment has been tested and found to comply with the limits for 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 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 to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and 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.

CISPR 22 WARNING:
This is a Class B product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

POWER SUPPLY REQUIREMENTS:
Power supply should be a NEC Class 2 / LPS Supply.

EQUIPMENT MODIFICATION CAUTION:
Equipment changes or modifications not expressly approved by seller. The party responsible for FCC compliance could void the user's authority to operate the equipment and could create a hazardous condition.

This class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Camera Specification

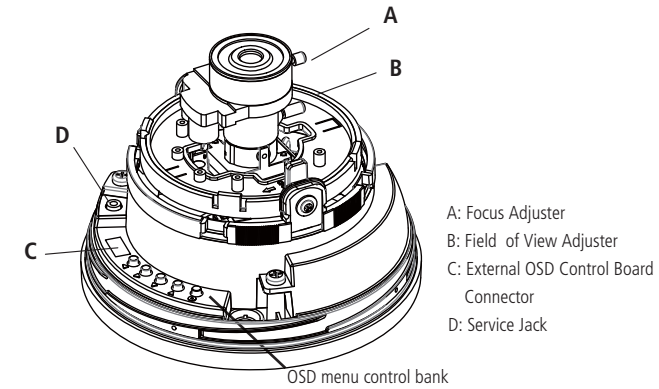
General Specifications		
TV System	NTSC	PAL
Image Sensor	Pixim Seawolf 1/3" Sensor	
Effective Picture Element	758(H)x540(V)	758(H)x540(V)
Scanning Frequency	60Hz	50Hz
Resolution	690HTVL-E	
Min. Illumination	50IRE: 0.1Lux F1.2	
Wide Dynamic Range Control	102dB Typical, 120dB Max.	
S/N Ratio	>50dB	
Video Output	1.0Vpp 75Ω BNC unbalanced	
Mount Type	Surface and Flush Mount	
Power Source	12VDC ±10% / 24VAC±20%	
Power Consumption	2.88 W Max	
Operating Temperature	-10°C~+50°C	
Storage Temperature	-30°C~+80°C	

Functional Specifications		
Exposure Control	Gain Control, Shutter Control, Wide Dynamic, Manual	
Digital Slow Shutter	up to 32X	
Backlight Compensation	Full Range	
Digital Noise Reduction	3D Motion Adaptive (0~255)	
White Balance Control	ATW Normal, AWB	
AWB	Standard Range	2800k~9100k
	EX Range	2000k~11000k
Day & Night	SDN (ON, OFF, AUTO)	
Sync System	INT / L.L	
Gamma Compensation	0.45	
Flip	Horizontal; Vertical; Both	
Digital PTX	1X~8X	

Lens Specification

Focal Length	2.8~10mm	9~22mm
F-No.	F1.2	F1.4
Iris Range	F1.2~F360	F1.4~F360
Minimum Object Distance	1.5m	1 m
Field Of View	Diagonal	41.9°~16.3°
	Horizontal	94.6°~28.8°
	Vertical	32.1°~13.1°
		23.3°~9.8°

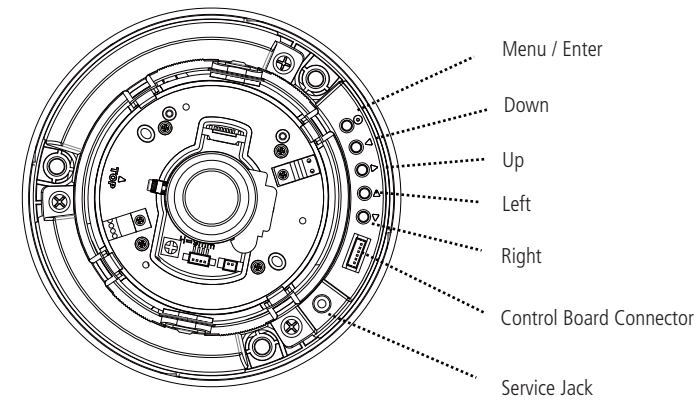
Camera Overview



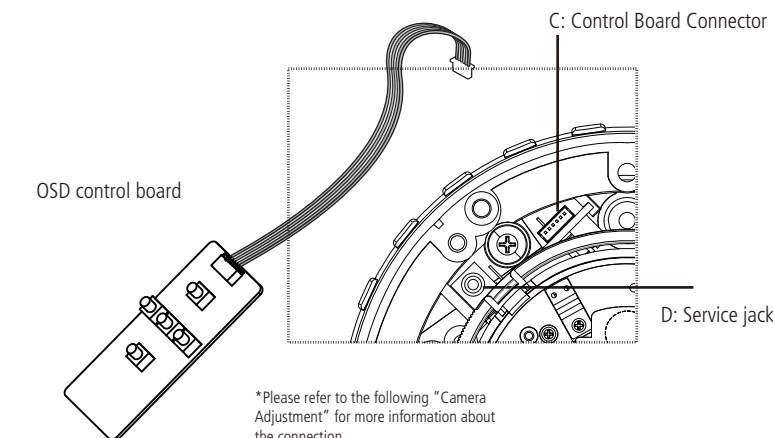
Camera Adjustments

The following illustration shows the service jack which is used to access the OSD and make any programming changes if required.

(1) Using keys on the control bank



(2) Using an optional external OSD control board



*Please refer to the following "Camera Adjustment" for more information about the connection.

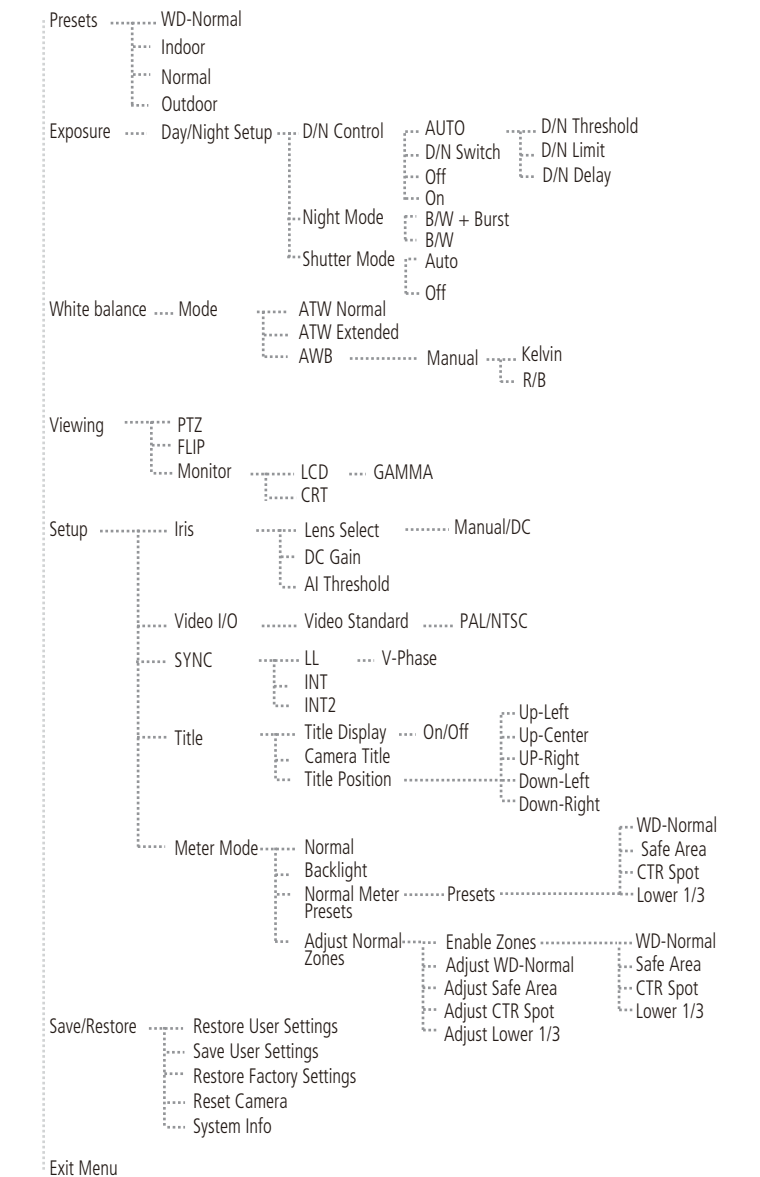
Camera adjustments and programming

In addition to the levers for **Focus (A)** and **Field of View (B)**, all settings are made by keys on the OSD service board.

1. With power applied to the camera and a video monitor connected, press and hold the **MENU** key for three seconds to access the top level menu. A map of the menu options are shown in the following **Camera OSD Menu**.
2. Use the arrow keys on the control board to navigate around the OSD menu and use the **MENU** key to confirm your selections.
3. Once programming is complete choose Exit from the menu, otherwise any changes made will be lost.
4. If required, the camera can be reset to factory defaults by selecting **RESET** in the OSD menu.

Note:
DPC (Dead Pixel compensation): The camera has a feature that can cover most dead pixels that could occur over time. Select DPC under the special menu. Cover the lens to black it out then press the menu key - this may take up to 30 seconds to complete. Once complete the camera will automatically take you to back to the menu structure. If you gain access to the DPC menu and do not want to perform the function, press the up or down button to escape and you will be returned to the previous screen.

Camera OSD Menu



Installation

Precautions

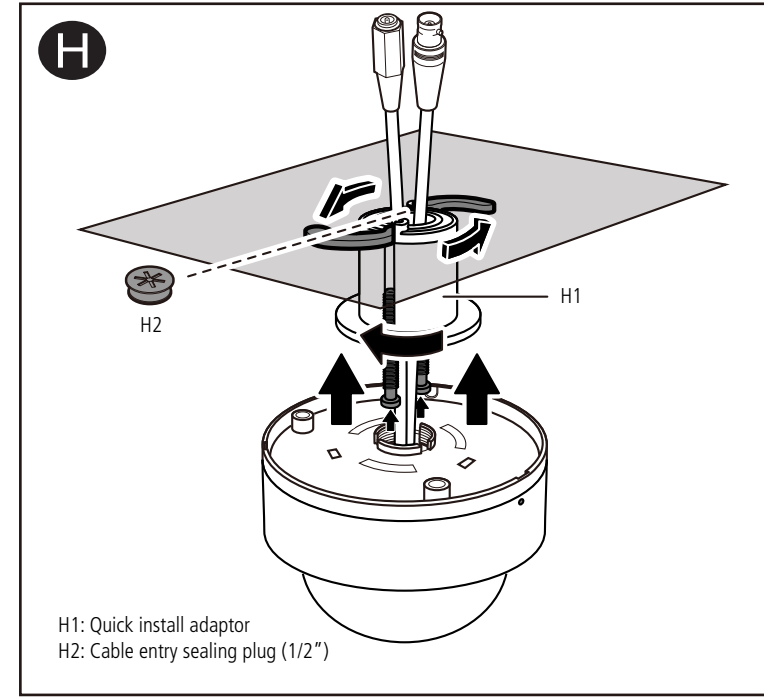
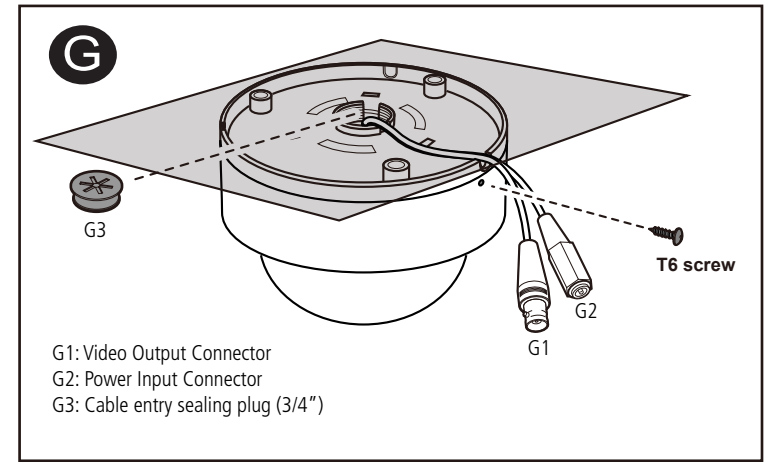
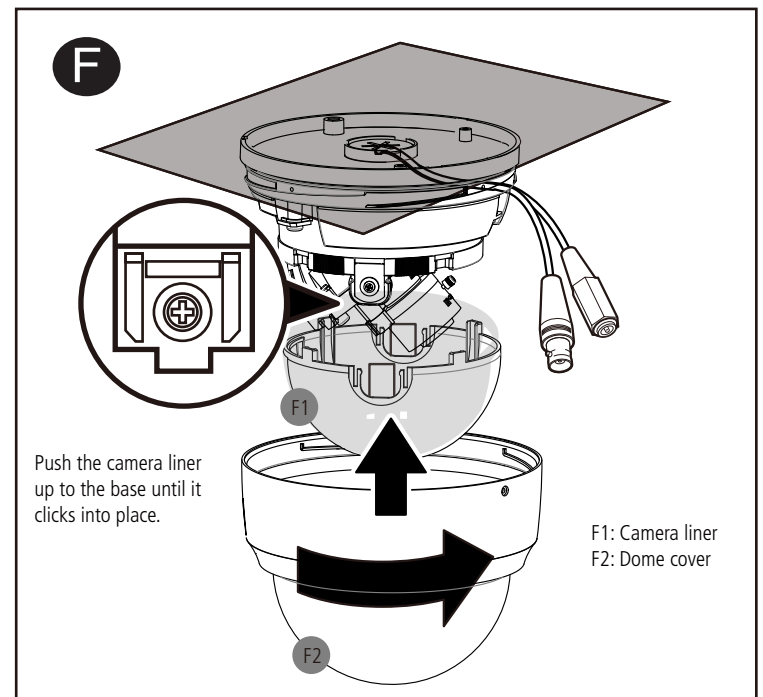
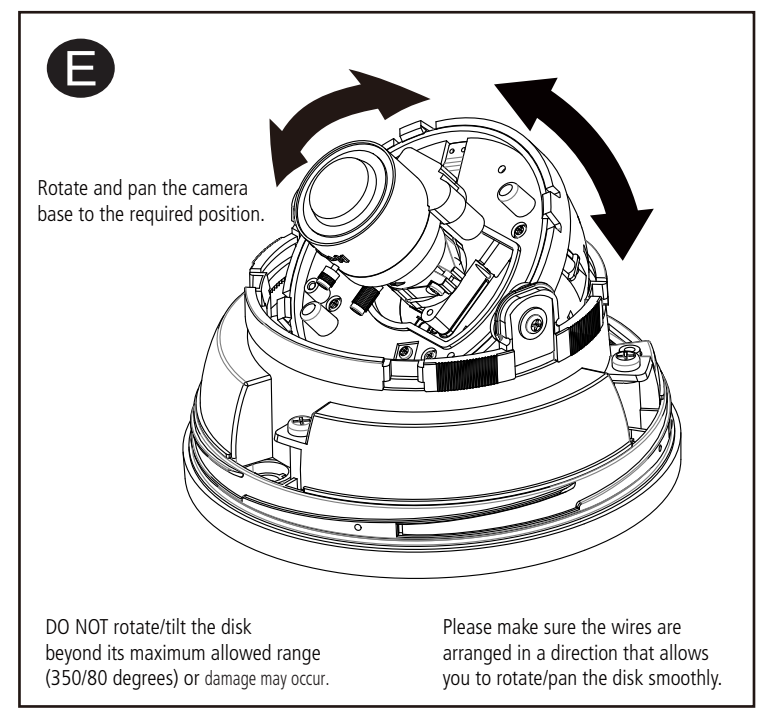
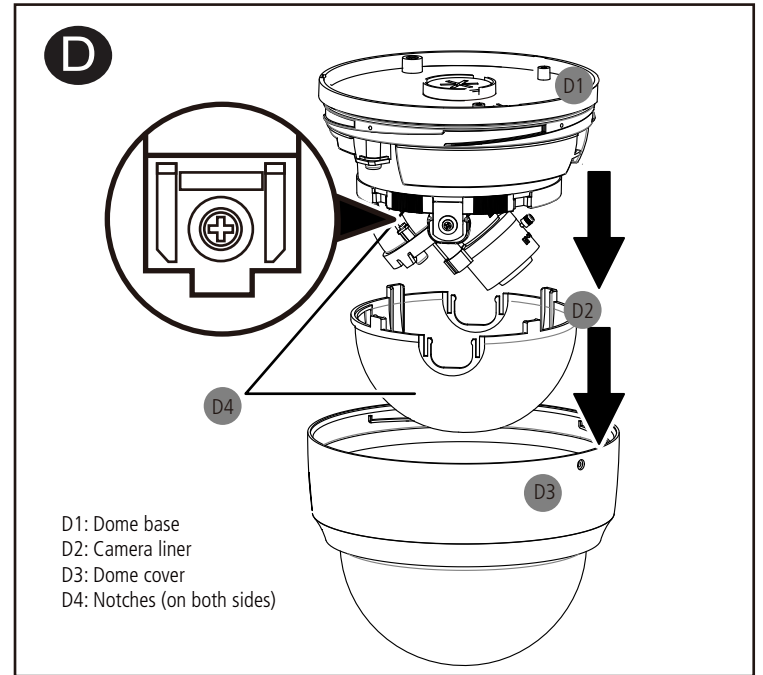
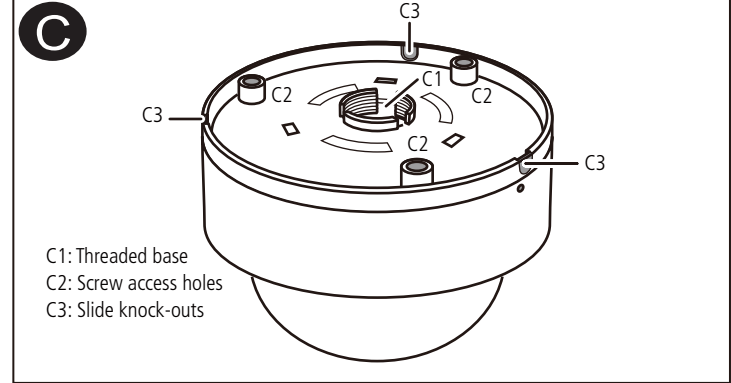
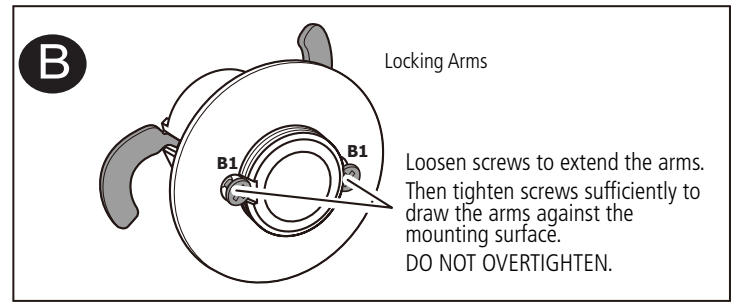
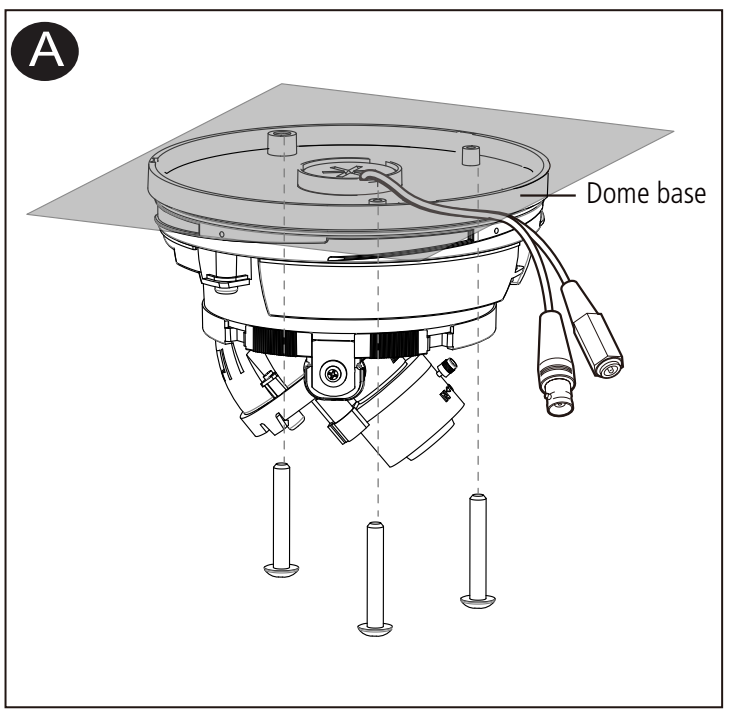
- Do not attempt to dismantle the camera module mounted within the dome. There are no user serviceable parts within the camera module. Refer servicing to qualified personnel.
- Handle the camera with care. Do not abuse the camera. Avoid striking or shaking it. Improper handling and storage could damage the camera.
- Do not operate the camera beyond its temperature, humidity or power source rating. Please refer to the environmental information provided overleaf.

Emissions

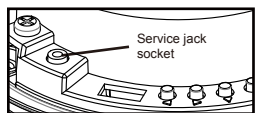
FCC COMPLIANCE: This equipment complies with Part 15 of the FCC rules for intentional radiators and Class B digital devices when installed and used in accordance with the instruction manual. Following these rules provides reasonable protection against harmful interference from equipment operated in a commercial area. This equipment should not be installed in a residential area as it can radiate radio frequency energy that could interfere with radio communications, a situation the user would have to fix at their own expense.

Install Methods

- A. By using the base mounting holes
- B. By using the quick install adaptor



How to install

- Remove the dome cover and the camera liner. Gently turn the dome cover counter-clockwise to unlock and pull free of the dome base. Remove the camera liner by gently pulling it free of the two notches (D4) in the camera base (see fig D).
- Use the template to mark-out and prepare the mounting area. When mounting the dome to a ceiling or wall using screws, first knock out the screw access holes (C2) that correspond to the template marks "D5". This can be done by using a cross-point screwdriver. When mounting the dome to a ceiling using the quick install adaptor, use the template to cut a hole as the circle marked "T5" with a hole cutter (See Step 9).
- Open the required knock-out panel (if surface wiring is to be used). Use a sharp knife or side cutter pliers to cut one of the side knock-outs (C3) to the size required to allow cable entry. Be careful not to hurt yourself or damage the camera when using knives and side cutter pliers.
- Mount the dome enclosure. Using one of the mounting schemes below (Template), fix the dome enclosure in place. *Please note that some mounting tools are optional. 
- Connect the wiring. Feed the pre-connected main lead (that feeds into the connections G1 and G2) through the appropriate point and connect it to your video out and power in cables. A service jack socket is also provided for temporary video connection when focusing the camera, using an optional service cable (SVC-CABLE).
- Adjust the camera position. You can adjust the focusing position by rotating and panning the camera base (see fig E).
- Install the camera liner. Carefully fit the camera liner (F1) over the camera base so that it snaps into place as shown in fig. F and does not obstruct the camera lens.
- Replace the dome cover.
 - Install 3/4" cable entry sealing plug (G3) on the dome base.
 - Push the cables (G1 and G2) through the dome base and 3/4" cable entry sealing plug (G3), make sure the sealing plug is properly installed on the base.
 - Replace the dome cover (F2) and rotate to close it as shown in fig F. Use the supplied T6 screw to secure the lid to prevent tampering (see fig. G).
- Using the quick install adaptor see figure H.
 - Install 1/2" cable entry sealing plug (H2) on quick install adaptor (H1). Push the quick install adaptor into the appropriate cut out hole.
 - Use the screws to adjust the position of the two locking arms (B1) on the quick install adaptor to adjust to the mounting surface.
 - Push the cables through the opening (H1) and 1/2" cable entry sealing plug (H2), make sure the sealing plug is properly installed on the adaptor;
 - Thread the dome onto the quick install adaptor. This takes about 1 1/2 turns. DO NOT OVERTIGHTEN. (Return to Step 5. to complete the installation).

Template

Surface mount (In a wall or ceiling)

Using Quick Install Adaptor: Create an aperture in the mounting surface to a diameter of 1.3" (35mm) as indicated by "T5".

Using screws: Create three holes at template positions 'D5' of diameter 1/4" (7.5mm) and insert a wall plug into each. Use three D5 screws.

Cable access

The cables are threaded through the base knockout (shown in C1 overleaf). It is threaded for use with the quick install adaptor.

When mounting the dome on a surface with the three D5 screws, use one of the side knock-outs as indicated by C3 shown in fig C overleaf for cable entry. See "Installing the dome enclosure" for instructions on how to drill a hole on the side knock-out.

