

LTC 113x & LTC123x FlexiDome Series Fixed Dome Cameras

Installation Instructions



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IMPORTANT SAFEGUARDS

- 1. Read Instructions**
All the safety and operating instructions should be read before the unit is operated.
- 2. Retain Instructions**
The safety and operating instructions should be retained for future reference.
- 3. Heed Warnings**
All warnings on the unit and in the operating instructions should be adhered to.
- 4. Follow Instructions**
All operating and use instructions should be followed.
- 5. Cleaning**
Unplug the unit from the outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
- 6. Power Sources**
This unit should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply you plan to use, consult your appliance dealer.
- 7. Power-Cord Protection**
Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords and plugs, convenience receptacles, and the point where they exit from the appliance.
- 8. Power Line**
An outdoor system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits.

9. **Overloading**
Do not overload outlets and extension cords as this can result in a risk of fire or electric shock.
10. **Object and Liquid Entry**
Never push objects of any kind into this unit through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electrical shock. Never spill liquid of any kind on the unit.
11. **Servicing**
Do not attempt to service this unit yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
12. **Damage Requiring Service**
Unplug the unit from the outlet and refer servicing to qualified service personnel under the following conditions.

If liquid has been spilled, or objects have fallen into the unit.

If the unit has been exposed to rain or water.

If the unit does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions, as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the unit to its normal operation.

If the unit has been dropped or the cabinet has been damaged.

When the unit exhibits a distinct change in performance - this indicates a need for service.
13. **Replacement Parts**
When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.

14. Safety Check

Upon completion of any service or repairs to this unit, ask the service technician to perform safety checks to determine that the unit is in proper operating condition.

FCC INFORMATION

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 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.

Shielded interface cables and A.C. power cord, if any, must be used in order to comply with emission limits.

Changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

SAFETY PRECAUTIONS



CAUTION

RISK OF ELECTRIC SHOCK. DO NOT OPEN!



CAUTION: TO REDUCE THE RISK OF ELECTRICAL SHOCK, DO NOT OPEN COVERS. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This label may appear on the bottom of the unit due to space limitations.



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



The exclamation point within an equilateral triangle is intended to alert the user to presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

ATTENTION: INSTALLATION SHOULD BE PERFORMED BY QUALIFIED SERVICE PERSONNEL ONLY IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE OR APPLICABLE LOCAL CODES.



Attention: Installation should be performed by qualified service personnel only in accordance with the National Electrical Code or applicable local codes.

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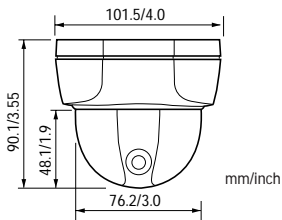
FEATURE OF FLEXIDOME SERIES

Monochrome and Color Fixed Dome Cameras

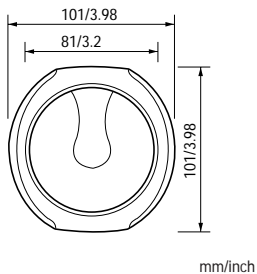
- Fixed Camera in 76mm (3 inch) Dome
- Color (DSP) and Monochrome models
- 1/3-inch Format CCD Image
- Selectable Shutter Controls, Electronic Shutter mode or/ Flickerless mode
- Back light Compensation
- Choice of 3.6mm or 6mm Lens
- Two Color Finishing, Dark or Light Dome Version
- Internal Pan (360°); and Tilt (90°) Manual Adjustment
- Flush & Surface; Ceiling & Wall Mounting in Standard Option

1 DIMENSION

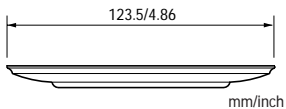
1.1 Front view of camera.....



1.2 Top view of camera.....



1.3 Side view of ring.....



2 STANDARD PACKAGE INCLUDED

- Metal bracket x1 pcs.....



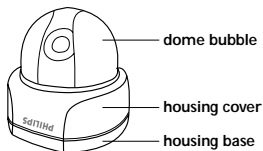
- Spring sheet x 2 pcs.....



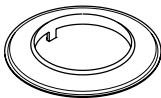
- Screw (for flush mount) x 4 pcs.....



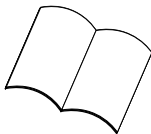
- Camera unit x 1 sets, plus 4 spare fixing screws.....



- Plastic ring x 1 pcs.....



- IFU x 1 copy.....

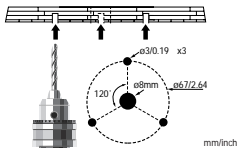




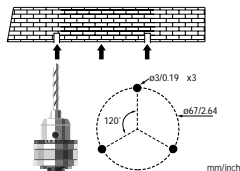
Recommend for Indoor Application Only

3. **INSTALLATION** (for Surface (Wall) Mount)
case a: Cables'route is above the surface like ceiling
case b: Cables'route is on the surface like concrete wall

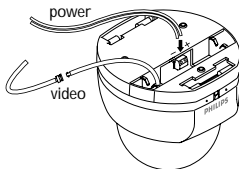
- 3.1 Case a:
Drill three(3) holes (\varnothing 3mm [0.19-inch]) for camera mount; and one(1) go-through hole (\varnothing 8mm [0.31-inch]) for cables entry.



- Case b:
Drill three(3) holes (\varnothing 3mm [0.19-inch]) for camera mount only.

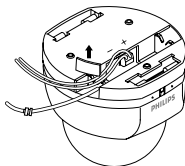


- 3.2 Connect "power cable (12Vdc)" to the terminal block; and coaxial cable (w/ female BNC) with the video extension one.

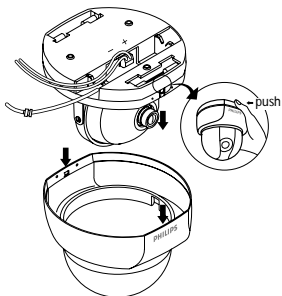


Note: Use only Class 2 listed 12Vdc/ 300mA well regulated power supply.

- 3.3 Case b only
Take off rim(s) of cable entry.

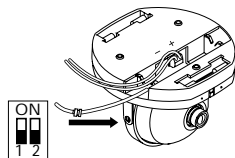


- 3.4 Take off the housing cover together with dome bubble.

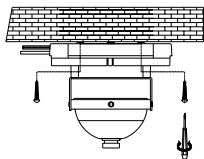


- 3.5 Set the Dip switch.

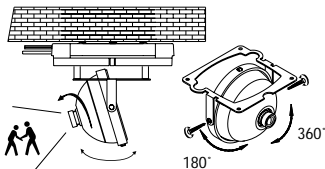
	"OFF" position	"ON" position
Dip Switch 1	BLC (disabled)	BLC (enable)
Dip Switch 2	ES mode	Flickerless mode



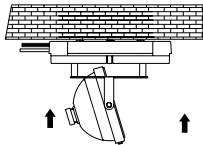
- 3.6 Install the camera onto wanted surface (wall) by fastening 3 screws (not supplied).



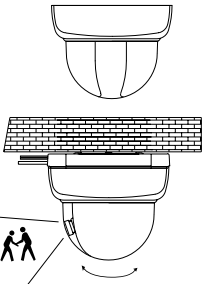
- 3.7 Adjust the lens position; and make sure the wanted view area has been covered. Then fix the position of camera module by fastening 2 screws on both sides of metal frame.



3.8 Put the "housing cover & dome bubble" onto housing base.

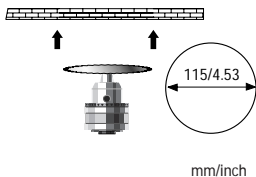


3.9 Rotate the bubble to make sure the lens is positioning to bubble's transparent part.

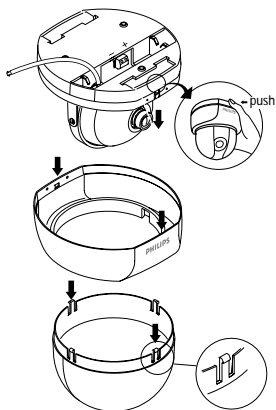


4. INSTALLATION (For Flush (Ceiling) Mount)

4.1 Cut a hole (ø115 mm [4.53-inch]).



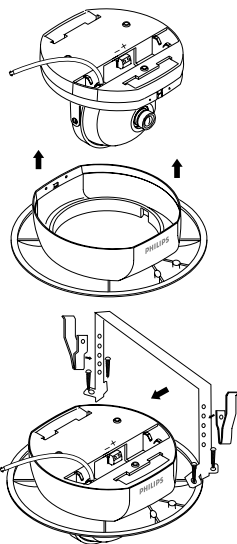
- 4.2 Take off the housing cover together with dome bubble; then separate housing cover & dome bubble.

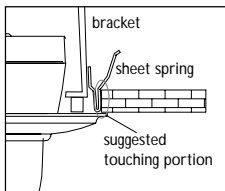


- 4.3 Mount the "ring" onto "housing cover"; then "ring + housing cover" onto the "housing base" accordingly. Secondly install the metal bracket and fasten it by using supplied four (4) screws. Finally snap 2 supplied sheet spring into the chosen hole of bracket based on the thickness of ceiling.



Note: User has to adjust the mounting height of sheet spring according to different thickness of ceiling in order to ensure perfect secured mounting mechanism as the below drawing and table.



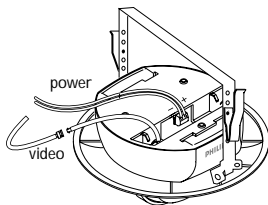


spring sheet location	ceiling thickness
lowest level	6~14mm [0.24~0.55-inch]
second level	15~21mm [0.6~0.83-inch]
third level	22~mm [0.87-inch]
highest level	-

- 4.4 Connect "power cable (12Vdc)" to the terminal block; and coaxial cable (w/ female BNC) with the video extension one.

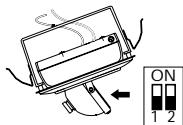


Note: Use only Class 2 listed 12Vdc/ 300mA well regulated power supply.



- 4.5 Set the Dip switch.

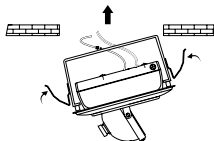
	"OFF" position	"ON" position
Dip Switch 1	BLC (disabled)	BLC (enable)
Dip Switch 2	ES mode	Flickerless mode



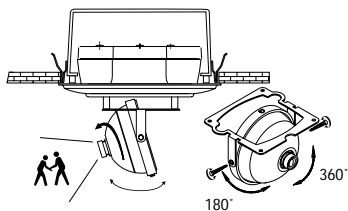
- 4.6 Install the camera unit into ceiling.



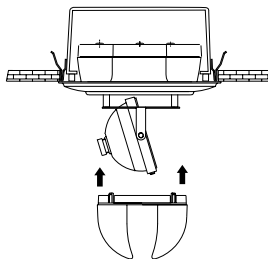
Warning: While installing the camera in the ceiling, ensure that the "housing cover" is not separated from "housing base" (force caused by the springs). This could be result in picture distortion (distance between lens and viewing window of bubble is too big).



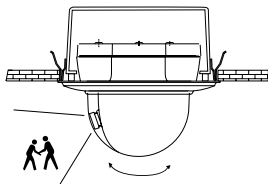
- 4.7 Adjust the lens position; and make sure the wanted view area has been covered. Then fix the position of camera module by fastening 2 screws on the sides of metal frame.



- 4.8 Put the dome bubble onto housing cover.



- 4.9 Rotate the bubble to make sure the lens is positioning to bubble's transparent part.



5 TECHNICAL DATA

Electrical (Monochrome Version)

Pick up device	:	1/3-inch CCD image sensor
Num. of pixel elements	:	CCIR 512 (H) x 582 (V) EIA 512 (H) x 492 (V)
Scanning system	:	2:1 interlaced CCIR 15,625 kHz * 50 Hz EIA 15,750 kHz * 60 Hz
Resolution	:	CCIR 380 TVL (H) EIA 380 TVL (H)
Minimum illumination	:	0.3 Lux (F1.4)
S/N ratio	:	48 dB
Auto gain Control	:	29 dB (max.)
Shutter control mode	:	auto electronic shutter or flickerless mode switchable
Electronic shutter	:	up to 1/100,000 sec
Back light compensa (BLC)	:	on/ off
Gamma compensa.	:	0.45
Sync. system	:	internal synchronization
Built-in lens	:	
LTC 1132/xx	:	3.6mm fixed lens
LTC 1133/xx	:	6.0mm fixed lens
Video output	:	1.0 Vp-p, 75ohm unbalance (composite)
Power source	:	12 Vdc +/- 10%, 150mA

Electrical (Color Version)

Pick up device	:	1/3-inch CCD image sensor
Num. of pixel elements	:	PAL 500 (H) x 582 (V) NTSC 510 (H) x 492 (V)
Scanning system	:	2:1 interlaced PAL 15,625 kHz * 50 Hz NTSC 15,750 kHz * 60 Hz
Resolution	:	PAL 330 TVL (H) NTSC 330 TVL (H)
Minimum illumination	:	2.2 Lux (F1.4)
S/N ratio	:	46 dB
Auto gain control	:	32 dB (max.)

Shutter control mode	:	auto electronic shutter or flickerless mode switchable
Electronic shutter	:	up to 1/100,000 sec
Back light compensa.	:	ON/ OFF
Gamma compensa.	:	0.45
Sync. system	:	internal synchronization
Built-in lens		
LTC 1232/xx	:	3.6mm fixed lens
LTC 1233/xx	:	6.0mm fixed lens
Auto white balance	:	2,700 °K ~ 9,100 °K
Video output	:	1.0 Vp-p, 75ohm unbalance (composite)
Power source	:	12 Vdc +/-10% 300 mA

Mechanical:

Cable entry	:	external connector
Mounting	:	flush/ surface mounting; or ceiling/ wall mounting
Construction	:	acrylic plastic housing
Finish	:	dark (charcoal color) or light (RAL color)
Dimension	:	see below figure
Weight	:	0.3 kg (0.7 lb)

Environmental:

Operating Temp.	:	-10 $^{\circ}\text{C}$ to + 50 $^{\circ}\text{C}$ +14 $^{\circ}\text{F}$ to + 122 $^{\circ}\text{F}$
Humidity	:	80% relative humidity

Electromagnetic Compatibility:

EMC Requirements		
CCIR/ PAL versions		
Immunity	:	EN50081-1
Emission	:	EN50082-1
EIA/ NTSC versions	:	FCC part 15, class B

Safety

CCIR/ PAL versions		
CE, LVD requirement	:	EN60950