

## INSTALLATION MANUAL – GBK Series Gang Box Cameras

**WARNING:** Before beginning installation of this product, carefully review the safeguards and precautions found on page 2 of this manual.

### Unpacking

Unpack carefully. This is electromechanical equipment and should be handled with care. If an item appears to have been damaged in shipment, replace it properly in its carton and notify the shipper. If any items are missing, notify BroadSight Systems, Inc. (BSI). The shipping carton is the safest container in which the unit may be transported. Save it for possible future use.

### Service

If the unit ever needs repair service, the customer should contact BSI for a return materials authorization (RMA) and shipping instructions.

### Care and Maintenance

Perform routine maintenance to keep the unit dust free. Clean the viewing window as needed with a soft, damp cloth.

### Model Designation

BGB-CW	Gang Box Camera, HD Analog, 2.5mm Lens, White Cover
BGB-CI	Gang Box Camera, HD Analog, 2.5mm Lens, Ivory Cover
BGB-CS	Gang Box Camera, HD Analog, 2.5mm Lens, Silver Cover

### Description

The Gang Box Cameras allow a camera to be recessed into a wall to provide a discreet viewing solution. The camera bracket and faceplate install into most standard single-gang boxes (customer supplied) and include multiple faceplate and viewing window options. The units accept low voltage 12VDC power.

### Hardware Kit

Clear Viewing Window  
Tinted Viewing Window  
White Faceplate  
Ivory Faceplate  
Silver Faceplate  
2 x #6-32 Screws, White Head  
2 x #6-32 Screws, Ivory Head  
2 x #6-32 Screws, Silver Head  
Components and brackets shown in Figure 1

### Certification

Installation should be performed by a licensed professional and conform to the National Electrical Code (NEC) and any applicable local codes.

### IMPORTANT NOTES – CAMERA RESOLUTION:

**\*\*These cameras are factory defaulted to Standard Definition NTSC/CVBS output.\*\***

**\*\*The video output can be set to one of several High Definition formats (AHD / TVI / CVI) by following the directions on page 3\*\***


### Tools Required

7/32" Wrench or Nut Driver  
Cross recessed screwdriver (Phillips)

### Installation (refer to Figure 1)

1. Before assembly and installation, determine the faceplate color and window type required for the cameras location.
2. To assemble camera, place viewing window frame over threaded studs on selected faceplate cover.
3. Place selected viewing window into frame.
4. Place one camera support arm over threaded stud to retain edge of viewing window.
5. Place metal washer over threaded stud. Thread standard nut onto stud. Use a 7/32" wrench or nut driver to tighten. **ATTAIN A SNUG FIT; DO NOT OVER TIGHTEN.**
6. Repeat for second camera support arm.
7. Determine orientation of the faceplate, attach camera to the upper support arm. Place nylon washer over threaded stud on camera bracket. Place threaded stud on camera bracket in hole on camera support arm. Place metal washer over threaded stud. Thread nylon locking nut onto stud. Use a 7/32" wrench or nut driver to tighten. **ATTAIN A SNUG FIT; DO NOT OVER TIGHTEN.**
8. Install camera power and video cable, perform camera set-up per camera manual included.
9. Adjust camera field of view, tighten camera on camera bracket with a small Philips head screw driver.
10. Place camera and cover over installed single gang electrical box. Attach cover to box using two (2) of the #6-32 oval head screws provided in three finish types.

# 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. Attachments - Do not use attachments not recommended by the product manufacturer as they may cause hazards.
7. Accessories - Do not place this unit on an unstable stand, tripod, bracket, or mount. The unit may fall, causing serious injury to a person and serious damage to the unit. Use only with a stand, tripod, bracket, or mount recommended by the manufacturer or sold with the product. Any mounting of the unit should follow the manufacturer's instructions and should use a mounting accessory recommended by the manufacturer.  
 An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.
8. Ventilation - Openings in the enclosure, if any, are provided for ventilation, to ensure reliable operation of the unit, and to protect it from overheating. These openings must not be blocked or covered. This unit should not be placed in a built-in installation unless proper ventilation is provided or the manufacturer's instructions have been adhered to.
9. 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 or local power company. For units intended to operate from battery power or other sources, refer to the operating instructions.
10. Grounding or Polarization - This unit may be equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug. Alternatively, this unit may be equipped with a 3-wire grounding-type plug, a plug having a third (grounding) pin. This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding-type plug.
11. 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.
12. Power Lines - 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. When installing an outdoor system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal. U.S.A. models only - refer to the National Electrical Code Article 820 regarding installation of CATV systems.
13. Overloading - Do not overload outlets and extension cords as this can result in a fire or electric shock.
14. 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 electric shock. Never spill liquid of any kind on the unit.
15. 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.
16. Damage Requiring Service - Unplug the unit from the outlet and refer servicing to qualified service personnel under the following conditions:
  - a. When the power supply cord or plug is damaged.
  - b. If liquid has been spilled or objects have fallen into the unit.
  - c. If the unit has been exposed to rain or water.
  - d. 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.
  - e. If the unit has been dropped or the cabinet has been damaged.
  - f. When the unit exhibits a distinct change in performance--this indicates a need for service.
17. 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.
18. 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.
19. Coax Grounding - If an outside cable system is connected to the unit, be sure the cable system is grounded. U.S.A. models only--Section 810 of the National Electrical Code, ANSI/NFPA No.70-1981, provides information with respect to proper grounding of the mount and supporting structure, grounding of the coax to a discharge unit, size of grounding conductors, location of discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.
20. Lightning - For added protection of this unit during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the cable system. This will prevent damage to the unit due to lightning and power line surges.

## FCC NOTICE

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause 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:

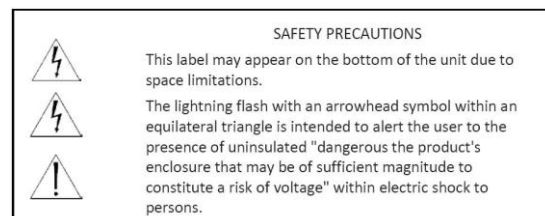
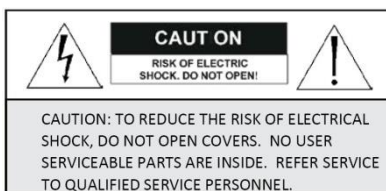
Relocate the monitor away from the TV/radio receiver.

Plug the monitor into a different wall outlet so that the console is on a different branch circuit.

Re-orient the TV/radio antenna.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions.

NOTE: Changes or modifications to the unit may void FCC compliance.



## Switch Video Output from Standard Definition to High Definition

These cameras have multiple video output formats are factory set to standard definition. In the event these cameras are used with HD DVRs, the user will need to select the desired HD format from the camera's OSD menu using the joystick on the camera cable.

The joystick controls are UP, DOWN, LEFT, RIGHT, PRESS.

1. Long-PRESS the joystick for three (3) seconds. Menu will open.
2. Select System (UP three (3) times then PRESS)
3. Select Video Output (PRESS)
4. Select desired video format:
  - a. RIGHT once (1) for CVI (HDC)
  - b. RIGHT twice (2) for TVI (HDT)
  - c. RIGHT three (3) times for AHD (HDA)
  - d. RIGHT four (4) times for NO VIDEO
  - e. RIGHT five (5) times to return to CVBS (NTSC / SD)
5. Once desired format is showing, exit the menu as follows:
  - a. DOWN once to highlight "Return", then PRESS
  - b. UP once to highlight "Return", then PRESS
  - c. DOWN twice to highlight "Exit (Save)", then PRESS

## Troubleshooting – Video Format

If using a standard definition (SD) DVR or monitor and the camera image appears scrambled, perform the following to attempt to put the camera into CVBS (SD) mode without being able to view the menu:

1. Unplug the power cable, then reconnect it.
2. Long-PRESS the joystick for 3 seconds.
3. Push UP three (3) times, then PRESS
4. Wait 2 seconds, then PRESS again.
5. The camera should be in the format section of the menu.
6. Slowly push RIGHT multiple times, waiting 3 seconds between each push.
7. If the image shows up clear, the camera will be in CVBS mode. Follow steps 5a-c (opposite column) to exit the menu.

If the menu does not behave as noted above, it's possible the camera is a previous generation with a different menu structure. Attempt the following to change video formats:

1. Unplug the power cable, then reconnect it.
2. Push and hold the below direction for 5 seconds:
  - a. LEFT to set the camera to CVBS (SD/NTSC)
  - b. UP to set the camera to AHD (HDA).
  - c. DOWN to set the camera to CVI (HDC).
  - d. RIGHT to set the camera to TVI (HDT).

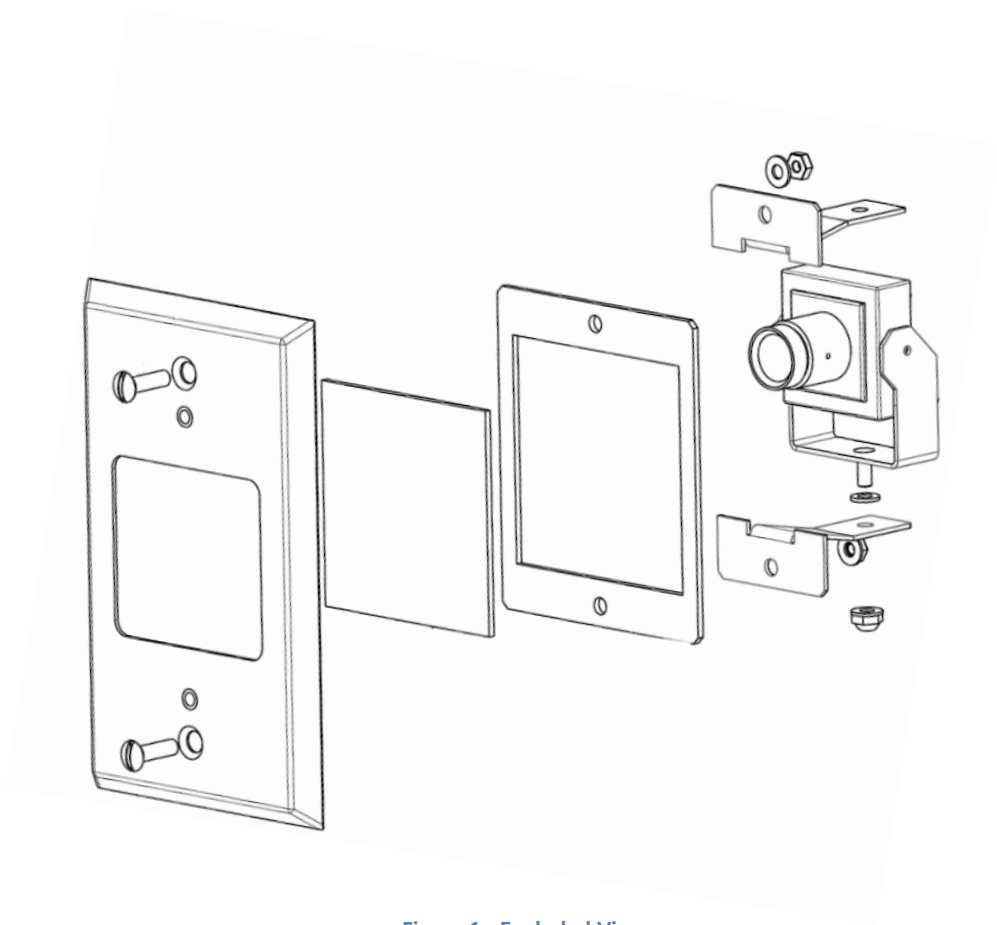


Figure 1 - Exploded View