Specifications

Power Consumption	This guide covers models with and without IR enabled. IR Off = 1.8 Watts max. IR On = 2.5 Watts max.
Operating Voltage Range	9 to 14 VDC (powered by DVR)
Operating Temperature Range	-4 to 122°F (-20 to 50°C)
Resolution	SDA: 500 TVL Equivalent AHD: 1080p (1920x1080)
Infrared LED Lamps	2 high efficiency LEDs
Minimum Illumination	Color: 0.1 lux (F2.0) B&W, IR LED on: 0 lux
Enclosure Size	Diameter: 4.14" (105 mm) Height: 2.6" (66 mm)
Enclosure Material	Solid aluminum alloy
Dome	Impact-resistant Polycarbonate
Connector Cable Length	12" (30 cm)
Weight	0.7 lbs (294 g)

Routine Maintenance

Most liquid cleaners or graffiti gel can be used to clean your camera enclosure. Do not use abrasive cleaners that can scratch the window and reduce visibility of the camera.

Replacing Damaged Housing

The camera top housing (with attached dome and captive screws) is a maintenance item. Replacement housings and extra captive screws are offered in a pack of 4, and the part number is **HD3Q-DOME-PACK**. These may be ordered from your camera distributor.

To remove and replace the housing, follow the procedures in Step 3 "Remove the Camera Dome" and Step 6 "Replace Camera Dome".

Service & Support

If your HD3Q Series Dome Camera is to be returned for service, please contact the Safe Fleet technical support team, provide the part and/or serial # of your unit, and ask for a **Return Merchandise Authorization (RMA)** number. An **RMA #** allows the support team to better track your product when it comes in for service. Please show the RMA # on the **outside** of the package.

ANY PRODUCT SENT WITHOUT AN RMA # MAY BE REFUSED!

Documentation and Warranty

Additional copies of this guide along with other documentation and product warranty can be found on the Safe Fleet Community website: https://community.safefleet.net

Technical Support

Phone: 1.844.899.7366
Email: PTsupport@safefleet.net

HD3Q Multi-Mode Interior Dome Camera
Quick Installation Guide

This guide applies to the following camera models:*

SDA Mode: HD3QxxA2SDA, HD3QxxAI2SDA

For exact model ID: replace "xx" with desired lens size (03=2.8mm, 04=3.6mm, 06=6.0mm).

*Models without "I" ship with IR disabled. Models with an "I" ship with IR enabled.

* This guide does not apply to HD3QxxA or HD3QxxAI (models without the "2").

Installation Kit Contents

The kit includes the following components:

- 1 HD3Q SDA camera, including dome
- 2 #10 1" self-drilling screws
- 1 Torx T20 security key
- 1 Quick Installation Guide
- 1 Mounting template

Step 1: Choose Camera Location

1. Determine the location for mounting the camera:
   - Choose a solid surface to minimize vibration
   - Choose a location away from access panels, hatches, or doors which may block the camera view
   - Choose a location away from heat sources
   - Do not point IR models directly at a reflective surface.

   Cameras are usually installed with cabling running inside wall panels.

2. Use the supplied mounting template to mark the cable hole (7/8") and screw holes (5/32") on the panel.

3. Use a step-bit to drill the cable hole, and regular bits for the screw holes.

> ⚠ **CAUTION: Harness Compatibility**
>
> Cameras in AHD mode require harness HEHDxx or HExHD (x = length). These harnesses have a blue band located at the connector. Cameras in SDA mode may use the same or older model harnesses (without a blue band).

Step 2: Connect the Camera

1. Connect the camera cable to the extension harness through the panel cable hole.
   Important: If the camera will be configured in AHD mode, ensure the extension harness has a blue band in front of the connector, indicating it is AHD-compatible.

2. Connect the extension harness's 2x3 Microfit connector to a compatible digital video recorder.

To video recorder

Captive screws

Extension harness
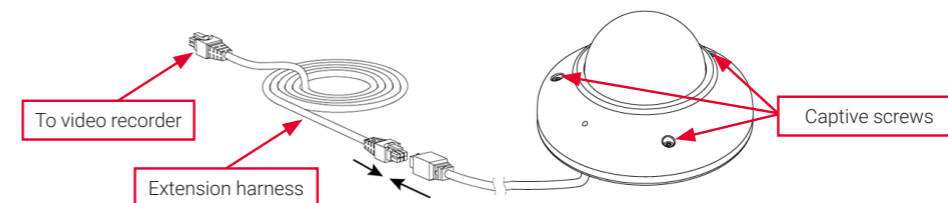
Step 3: Remove the Camera Dome

1. Using the security key supplied with the camera, loosen the captive screws on the housing.

2. Lift the housing off the base.

Step 4: Install the Camera

> ⚠ CAUTION: Camera PCB and Wiring
>
> While installing the camera, do not impact the printed circuit board or wiring inside the camera with screws or screwdriver bits. Damage to the camera can result.

Use the two #10 x 1" self-drilling mounting screws supplied with the camera to attach the camera to the vehicle.

Step 5: Aim and Configure the Camera

1. With the camera connected to the recorder and both powered on, access the recorder using a monitor connected to the local video out.
2. With the recorder's on-screen display showing the camera view, set the camera's pan, tilt, and rotate positions.

Step 6: Replace the Camera Dome

1. Fit the dome onto the base, **ensuring the pin on the dome is aligned with the slot on the base** before tightening the security screws.
2. Ensure the foam IR boot around the camera lens is firmly pressed against the inside of the dome.
3. Use the security key to tighten the captive screws.
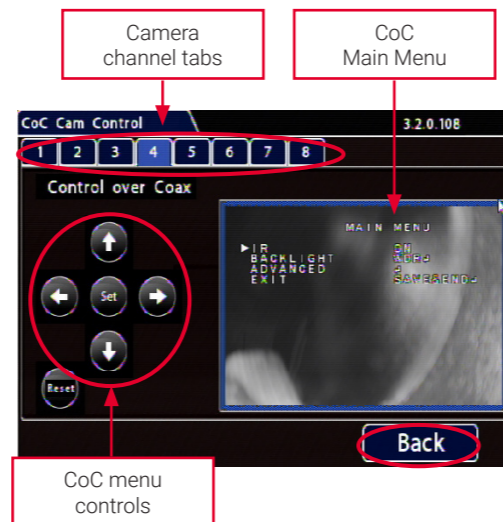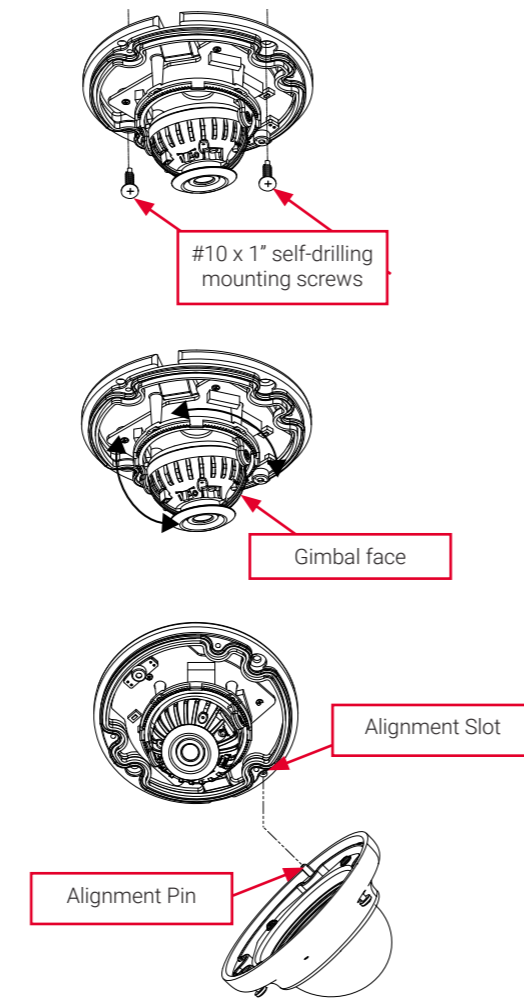
Step 7: Configuration Settings

Cameras covered by this guide are configured for legacy CCTV recorders. This section explains how to adjust camera modes on recorders supporting the CoC (Control over Coax) function. This generally includes the H-Series recorders.

Accessing the CoC Main Menu

1. Open the recorder's on-screen display **CoC Cam Control** screen. On newer recorders running updated firmware, use the following navigation through the menu path (*other recorders or older firmware may utilize a different menu path*):

   Configuration ➔ Record ➔ Camera ➔ Analog ➔ CoC Cam Control

2. Select the tab for the channel to which your camera is connected.
3. Click **Set** to display the camera CoC Main Menu.

Changing IR or Backlight Settings

1. In the CoC Main Menu, use ⬇ ⬆ buttons to choose **IR** or **BACKLIGHT**. A triangle pointer appears to the left of the selected option.
2. Click ⬅ ➡ to cycle through settings until the desired option appears in the right-hand column (for details, see the table on the next page).
3. When you're done, use ⬇ ⬆ to select **EXIT** (**SAVE & END**), then click **Set** to save your settings and close the menu.
4. Click **Back** repeatedly to exit Configuration menus.

#10 x 1" self-drilling mounting screws

Gimbal face

Alignment Slot

Alignment Pin

Camera channel tabs

CoC Main Menu

CoC menu controls

Back

Step 7: Configuration Settings (*continued*)

Changing IR or Backlight Settings (*continued*)

IR (Infrared)	**OFF**: IR is disabled. Use in product configurations where IR is not required.
	ON (*default*): IR LEDs illuminate automatically upon sensing a low light condition.
BACKLIGHT	**WDR** - Wide Dynamic Range (*default*): helps reduce glare for scenes with simultaneous wide variance in lighting
	BLC - Back Light Compensation: helps improve image quality when back lighting is strong.
	OFF: Shutter speed is based on the light level of the entire image.

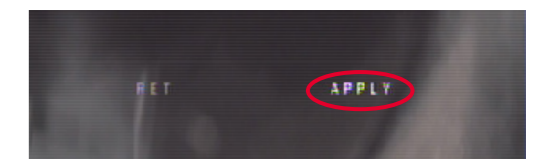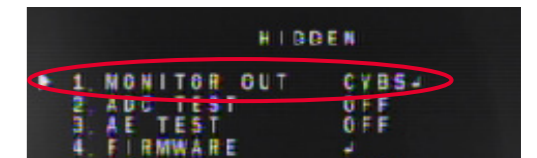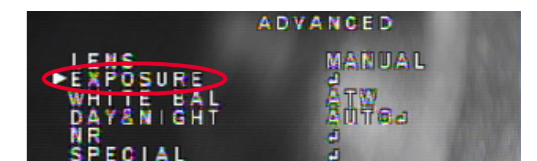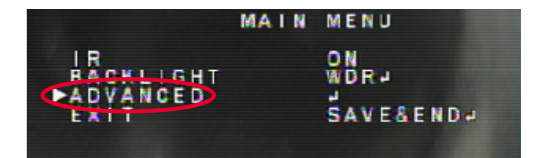### Configuring Video Output Mode (AHD or SDA)

These steps change the video output mode from SDA (CBVS) to AHD and vice versa. Remember to use the correct video cable for the selected mode.

1. Open the **CoC Main Menu** and select the tab for the channel to which your camera is connected (for details, see "Accessing the CoC Main Menu" on the previous page).
2. Click ⬇ **twice** to select **ADVANCED**. A triangle pointer appears to the left of the current selection.

   > ⓘ NOTE: CoC Menu Controls
   >
   > If menu navigation or item selection (clicks) do not appear to take effect, you may need to retry the operation.

3. Click **Set** to display the Advanced menu.
4. Click click ⬇ to select **EXPOSURE**.
5. Click ➡ **three times**, then click **Set**. The **HIDDEN** menu should be displayed. *Note: if the EXPOSURE menu appears instead, the command failed to execute*: use the ⬇ ⬆ buttons to select **RETURN**, click **Set**, then retry the command.
6. With **MONITOR OUT** selected, click ➡ to change the setting from **CVBS** (SDA) to **AHD** or vice-versa.
7. Click **Set**. The menu screen displays RET (flashing) and APPLY.
8. Click ➡ to select **APPLY**, which then flashes at the right side of the screen.
9. Click **Set**. The camera restarts and the CoC menus close.
9. Click the **Back** button at the bottom-right of the CoC Cam Control screen. The **Camera Settings ➔ Analog** tab appears.
10. In the row for the channel to which your camera is connected, use the **Source** dropdown menu and select **2MP** or **SD**, depending upon the selected **MONITOR OUT** setting. Available resolution values will automatically update.

Camera Settings (Analog tab)