

# CE-X1HD

## INSTALLATION GUIDE

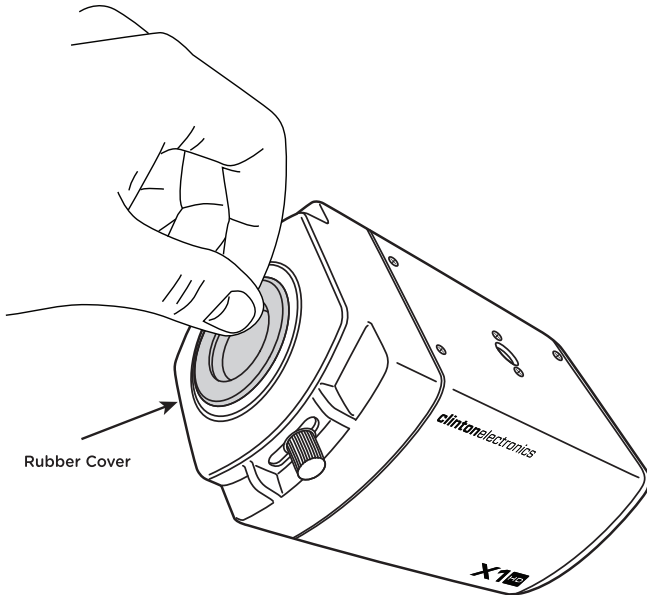
- Included Items:**
- Camera x 1
  - Auto Iris Lens Connection Plug x 1
  - C-Mount Lens Adapter x 1

- Required Items:**
- CS-Mount lens or C-Mount lens
  - Camera Mounting Bracket

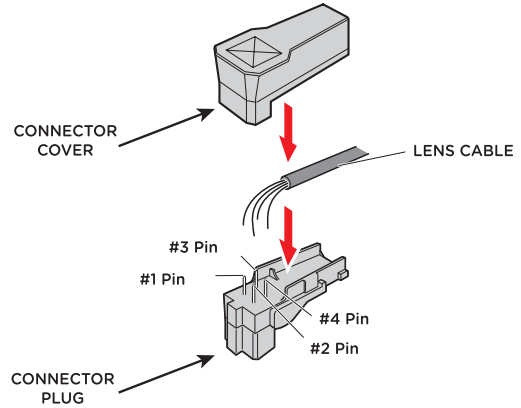
- Optional Items:**
- CE-REMOTE (OSD Remote Control)
  - CE-SDITEST (HD-SDI Cable Tester)

### 1. LENS

**a.** Remove the protective rubber cover from the camera front in preparation for lens installation.



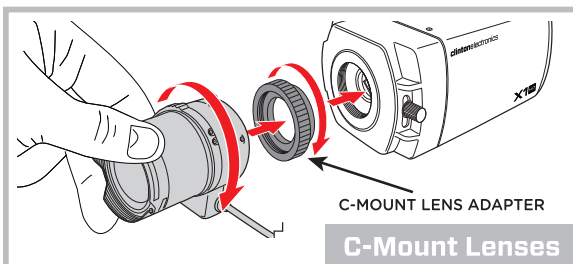
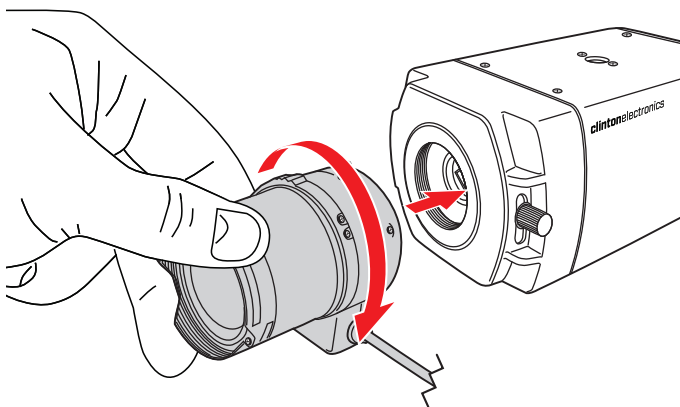
**b.** If using a lens that does not have a pre-installed auto iris connection plug on the lens cable, use the supplied Auto Iris Connection Plug. Strip approximately 3/8" from the lens cable, then strip approximately 1/16" from each of the 4 wires inside the lens cable. Solder each wire to the appropriate pin. (see chart below)



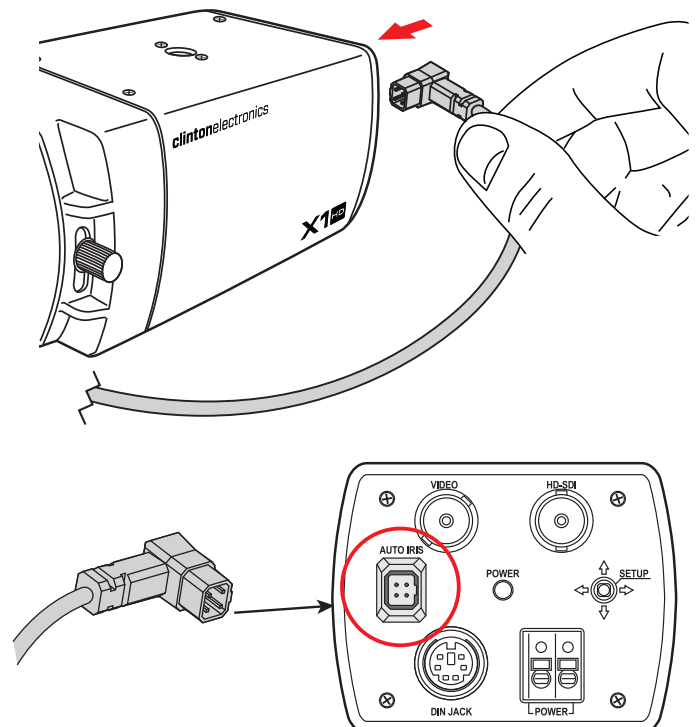
Pin #	DC LENS	VIDEO LENS
#1 Pin	Damping -	RED (power)
#2 Pin	Damping +	NC
#3 Pin	Drive +	WHITE (video signal)
#4 Pin	Drive -	BLACK (ground)

**c.** Screw the desired CS-Mount lens clockwise into camera body.

If using a C-Mount lens; use the supplied C-Mount lens adapter between the lens and the camera body. Failure to use the C-Mount Lens Adapter when using a C-Mount lens could result in damaging the camera sensor.

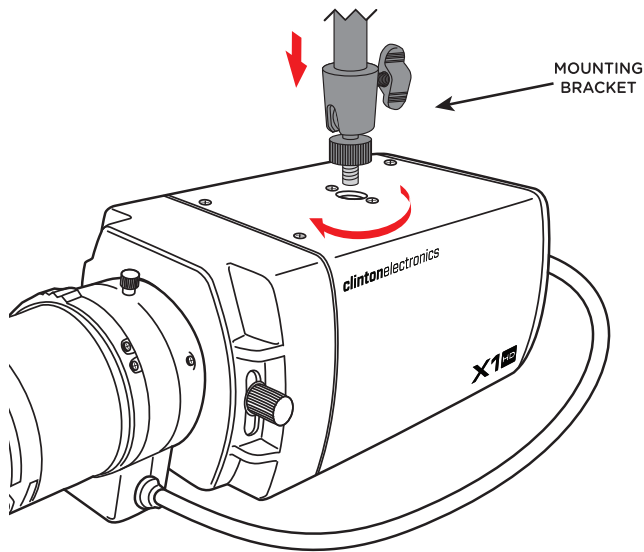


**d.** Insert the auto iris connection plug into the auto iris jack located on the back of the camera body.



## 2. MOUNT CAMERA

Thread screw from mounting bracket into the hole on either the top or bottom of the camera housing.

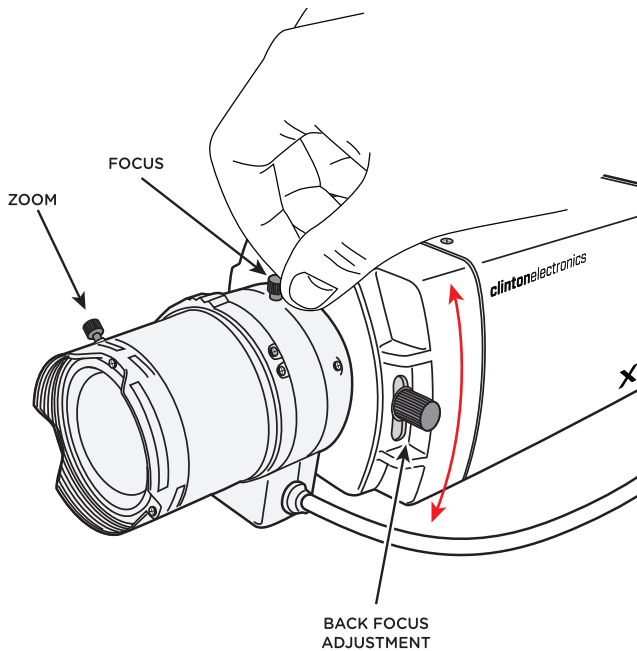


\*Mounting Bracket sold separately.  
Mounting bracket shown may vary from actual mounting bracket used.

## 4. ZOOM/FOCUS ADJUSTMENT

To adjust the zoom and focus of the camera use your fingers to loosen the appropriate adjustment knob. Widen the viewing angle by rotating the zoom knob to the Left. To narrow the viewing angle rotate the zoom knob to the Right. Rotate the focus knob Left or Right to focus the lens.

Theoretically, it should be possible to just thread in a lens and have the image in focus, but due to slight differences in manufacturing tolerances on both lenses and cameras, it may be necessary to back-focus the camera to achieve proper focus.

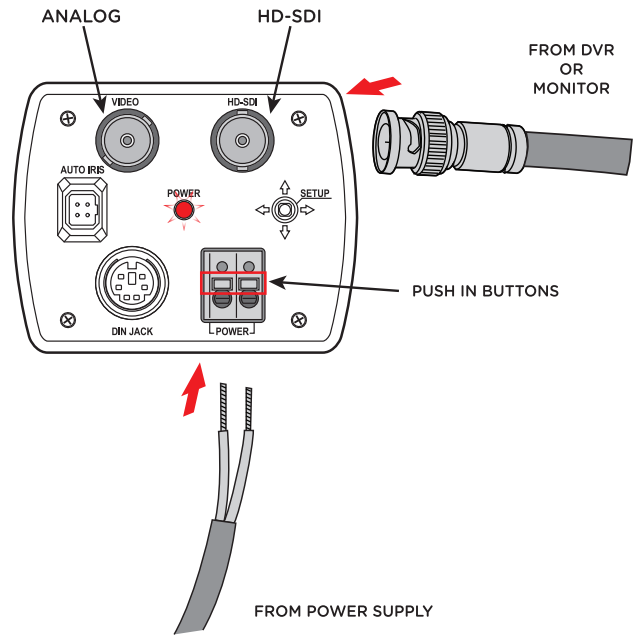


Actual lens ZOOM/FOCUS adjustments may vary from those shown. After adjustments have been made make sure to tighten the adjuster knobs to lock the adjustments into place.

## 3. ATTACH CABLES

Connect quality coax cable to the HD-SDI BNC Connector on the back of the camera. While supporting the camera, press in and hold the buttons on the AC24V IN / DC12V IN port, then insert the power wires. The positive and negative wires can go in either hole. Once power is supplied to the camera the red LED will light.

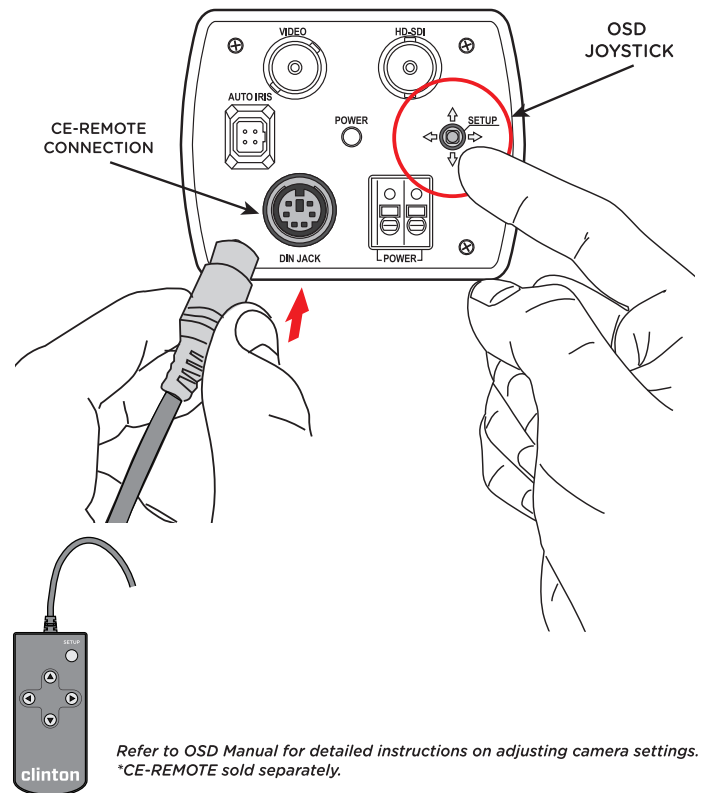
To ensure quality operation, verify proper BNC and power termination; along with proper voltage at camera.



Inferior quality coax cable or excessively long runs of cable will cause the HD-SDI video signal to be poor or not viewable. It is recommended to test all coax cable to be used as HD-SDI with a HD-SDI Cable Tester.

## 5. OSD CONTROL

Before completing the installation you may wish to test the camera with a test monitor and make adjustments to the camera settings in the OSD (On Screen Display) Menu. Press the SETUP joystick "IN" to access the main menu, or attach the CE-REMOTE\* to the DIN JACK port on the back of the camera.



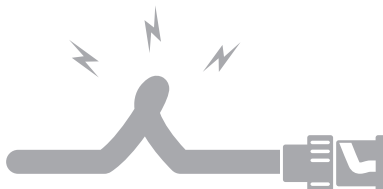
Refer to OSD Manual for detailed instructions on adjusting camera settings.  
\*CE-REMOTE sold separately.

# HD-SDI INSTALL TIPS



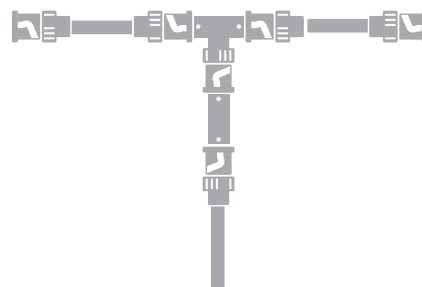
## Existing Coax:

Coax cable that once worked fine for analog may not be suitable for HD-SDI installations. HD-SDI is a digital signal that has a different transmission method than analog. It is important to test the cable before committing to using the existing coax cable for your installation.



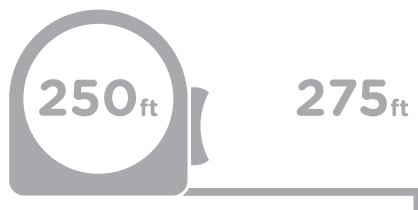
## Coax Cable Integrity is Critical:

Do not kink or bend the coax cable at an extreme angle. The integrity of the outer shielding of coax is very important to the HD-SDI signal. Damaged cable reduces the signal strength and could even cause no video.



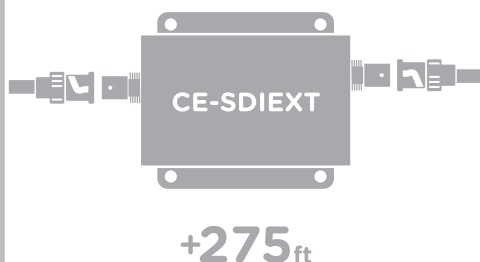
## Avoid Splices:

Splices and poor quality connectors are not suitable for a HD-SDI system. Avoid splices at all costs and only use high quality compression style BNC connectors.



## Typical Distance:

The typical distance with Clinton CE-CB1000 or CE-CW1000 Siamese cable range from 250-275 feet.



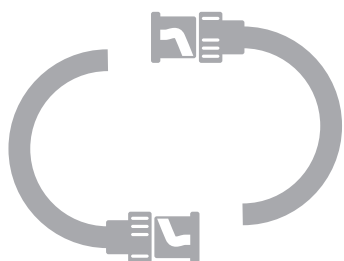
## Longer Distances:

If you plan to run the coax longer than 275 feet, we strongly recommend that you use an HD-SDI extender like the CE-SDIEXT.



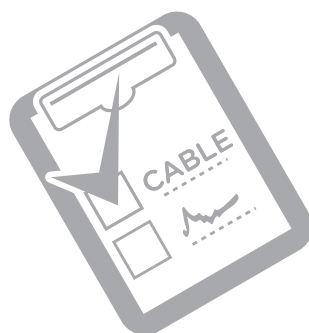
## Coax Cable Testing:

It is advised to use a signal generator (CE-SDIGEN) and a cable tester (CE-SDITEST) to check the cable to see if it will be OK for an acceptable HD-SDI signal.



## Analog and HD-SDI are not interchangeable.

While HD-SDI and Analog share the same type of cable and connectors, that is where the similarities end. Analog cameras will not work on HD-SDI DVRs and HD-SDI cameras will not work on Analog DVRs.



## When in doubt test the cable:

Before you suspect the HD-SDI camera or DVR is defective please check the device with a short piece of coax cable to make sure it is not the cable run causing the trouble.



## We are here to help:

If you need further help call Clinton Electronics Technical Support at 800-549-6393.