HCS544/HCS544X Camera Quick Install Guide

Installation

The HCS544/HCS544X camera is designed for general surveillance applications and is ideally suited for low-light indoor environments.

Installing the Lens

The HCS544/HCS544X camera is factory configured for a CS-mount lens. Screw the lens (customer supplied) into the front of the camera body.

Figure 1   Lens Installation

Setscrews (x2)

Pin	DC Lens
1	CTRL -
2	CTRL +
3	DRV +
4	DRV -
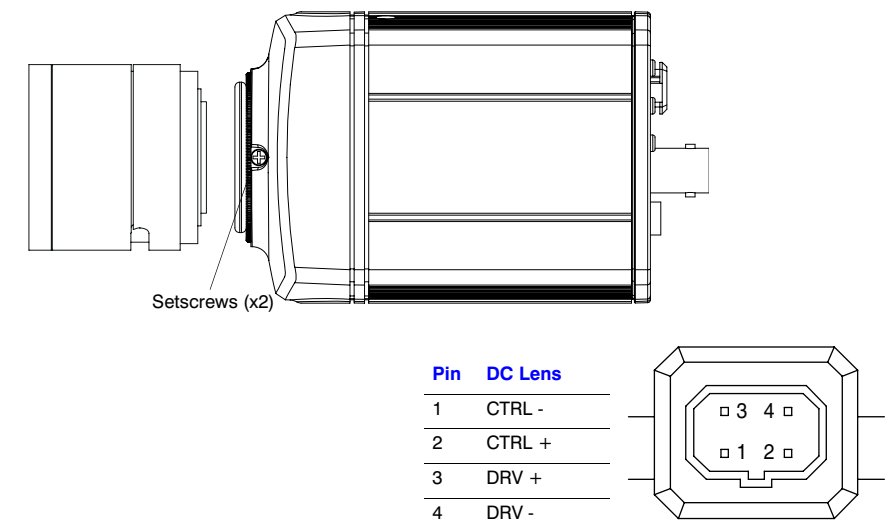
### Adjusting the Back Focal Length or Picture Focus

The back focus adjustment is accessible at the front end of the camera housing.

1. Loosen the two setscrews (see *Figure 1*) with a Phillips screwdrivers.
2. Adjust the focus ring to focus the picture, then retighten the setscrews.

Connecting the Camera

1. Connect the VIDEO connector on the rear of the camera to the video-in connector on your monitor or video recorder.
2. Connect the camera to a power supply appropriate for your installation (12 VDC or 24 VAC).
3. Plug the power supply into an appropriate power source. The power LED illuminates to show that the camera is receiving power.

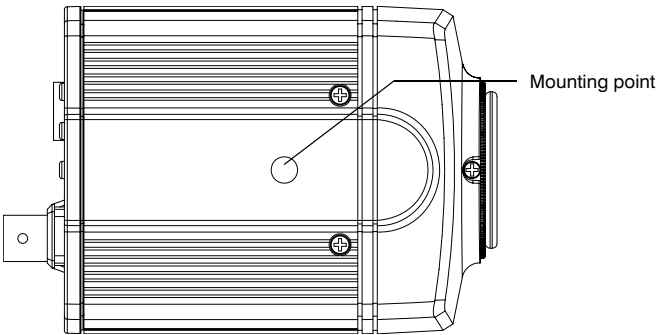**Figure 2   Video Connections**

Power LED
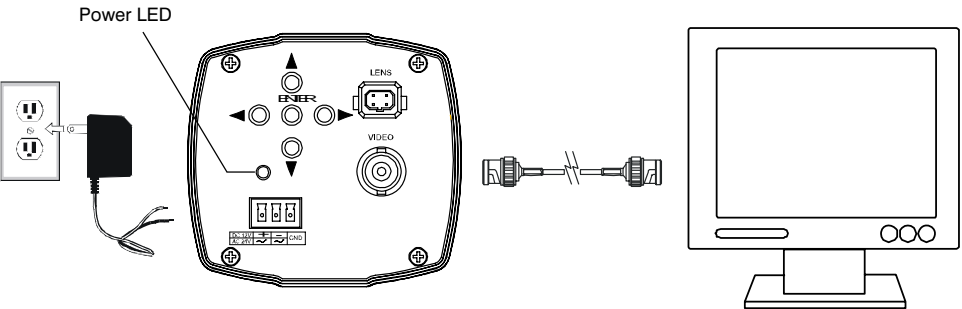
Mounting the Camera

There are mounting points on the top and bottom of the camera to mount the camera on a bracket or tripod. Use standard sized mounting bolts to install the camera to a mounting bracket.

Caution Follow local installation codes for proper mounting bracket support capability.

Top view shown

Mounting point

Making Final Adjustments

Adjust the focus in your field of view until you see a clear image. If necessary, adjust the brightness using the OSD menu controls (see *LENS DC/BRIGHTNESS* or *AGC*). Confirm the exposure on the monitor screen.

Programming

OSD Menu Controls

Figure 3   Camera Controller

Camera OSD control (4 position plus center press (ENTER)

Navigating through the menus

ENTER

Press this control	To do this …
ENTER (SET)	Press to enter SETUP menu. Press to enter a screen or select a menu option.
UP, DOWN (▲, ▼)	Move vertically between menus and options.
LEFT, RIGHT (◄, ►)	Move horizontally between menus and options.
↵	Indicates submenus. Select the menu, then press ENTER.
EXIT	Exit the menu.

Note   Menu display turns off automatically after 70 seconds of no activity.

OSD Menu Structure

The HCS544/HCS544X menu system consists of one main SETUP menu (see *Figure 4*) for easy camera programming.

Figure 4   Menu Structure

Main Menu   **Submenu**   **Menu Options**

LENS — DC↵ MANUAL

SHUTTER — FLK, ESC↵ MANUAL

WHITE BAL — ATW, MANUAL↵ AWC↵

BACKLIGHT — OFF, LOW, MIDDLE, HIGH

AGC — OFF, LOW↵, MIDDLE↵ HIGH↵

DNR — OFF, LOW, MIDDLE, HIGH

DSS — OFF, AUTO↵

SPECIAL↵ — See *SPECIAL Menu*.

```
        <<SETUP MENU>>
1  LENS              DC↵
2  SHUTTER           – – –
3  WHITE BAL.        ATW
4  BACKLIGHT         OFF
5  AGC               HIGH↵
6  DNR               MIDDLE
7  DSS               AUTO
8  SPECIAL↵
9  EXIT MENU
```

See *SETUP Menu Functions* for a description of the submenus and menu options.

SETUP Menu Functions

	Menu Item	Option	Description
1	LENS	DC↵ MANUAL	Selects lens type. Press ENTER with DC selected to access the BRIGHTNESS control for iris level adjustment.
2	SHUTTER	FLK ESC↵ MANUAL	Adjusts shutter settings. Flickerless mode (FLK) reduces on-screen flickering. Electronic Shutter Control (ESC) adjusts brightness level on screen when using a manual lens. Select Manual mode to adjust the shutter speed from 1/60-1/120,000 of a second (NTSC), or 1/50-1/120,000 (PAL).
3	WHITE BAL. (White Balance)	ATW MANUAL↵ AWC↵	Controls color on the screen. Select Auto Tracing White Balance (ATW) when the color temp is 1800°K-10500°K (for example when under a fluorescent light, or outdoors). Select Manual mode to increase or decrease the red or blue GAIN on screen. Select Auto White Balance Control (AWC), then press ENTER to automatically adjust the white balance to your specific environment.
4	BACKLIGHT	OFF LOW MIDDLE HIGH	Provides light level control to overcome severe backlighting conditions.
5	AGC (Automatic Gain Control)	OFF LOW↵ MIDDLE↵ HIGH↵	Adjusts value of AGC gain. Increase the GAIN level to brighten the picture in low light conditions (noise/distortion may develop). The submenu provides access to the BRIGHTNESS control.
6	DNR (Digital Noise Reduction)	OFF LOW MIDDLE HIGH	Reduces noise/distortion on the screen. Increasing the DNR level reduces noise but may introduce video artifacts. DNR is deactivated if AGC is turned off.
7	DSS (Digital Slow Shutter)	OFF AUTO↵	Automatically provides a clear image under low-light conditions. You can control the maximum low-light magnification from 2x to 128x (increasing magnification may cause noise/distortion). DSS is deactivated when SHUTTER is set to FLK mode.
8	SPECIAL↵		Takes you to the SPECIAL menu (see *SPECIAL Menu*).
9	EXIT		Exits the SETUP menu and returns to video monitoring.

SPECIAL Menu

1. On the SETUP menu, press the menu control **UP** or **DOWN** and then select **SPECIAL**.
2. Press the **ENTER (SET)** control to access the SPECIAL menu.

Figure 5   SPECIAL Menu
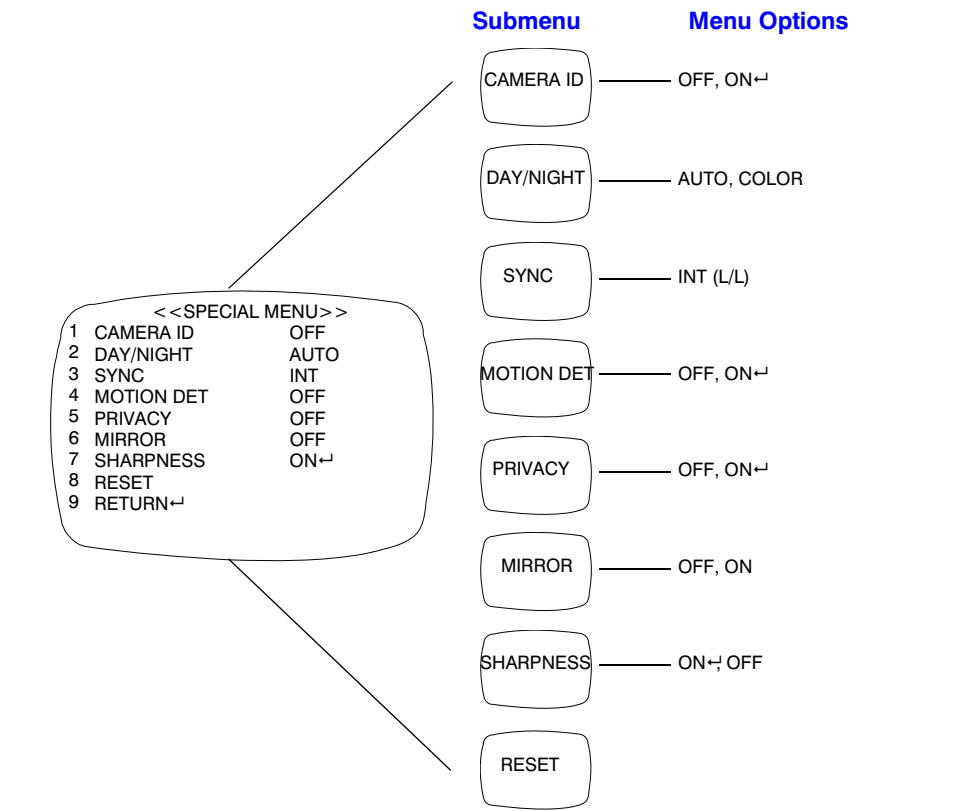
SPECIAL Menu Functions

	Menu Item	Option	Description
1	CAMERA ID	OFF ON	Display a name and/or number on the monitor. To add a camera title: **UP**, **DOWN**, **LEFT, or RIGHT** menu control = select a character, then press **(ENTER) SET** to accept it. The character is saved and the title cursor at the bottom of the screen moves to the next position. ← → = go back or forward in the title name to make changes. **CLR** = delete the entire name and start again. **POS** = position the camera title on the screen. Press **(ENTER) SET** to confirm the position. **END** = accept the new name.
2	DAY/NIGHT	AUTO COLOR	AUTO = Automatically detect color or black/white COLOR = Full-time color mode.
3	SYNC	INT L/L	INT = Synchronize the vertical interval sync pulse of your camera with other equipment to reduce the effect of picture roll on the monitor. L/L (Line Lock) = adjust the phase from 0° - 359°.
4	MOTION DET	OFF ON↵	Detect moving objects on screen; displays MOTION DETECTED when movement is detected. Select the area on screen you want to observe.
5	PRIVACY	OFF ON↵	Mask up to 4 areas of the screen from video monitoring.
6	MIRROR	OFF ON	Produce a horizontal mirror image on screen.
7	SHARPNESS	ON↵ OFF	Sharpen the image on screen (image level 0 - 31). Excessive sharpening may cause picture noise.
8	RESET		Restore all factory default settings.
9	RETURN↵		Return to the main SETUP menu.

MOTION DETECTION submenu

Menu Item	Option	Description
AREA SEL	AREA 1 AREA 2 AREA 3 AREA 4	Select a motion detection grid (top left, top right, bottom left, bottom right) to modify.
AREA STATE	ON OFF	Activate or deactivate the selected grid.
TOP DOWN LEFT RIGHT		Press **LEFT** or **RIGHT** menu control left or right to alter the dimensions of the selected grid.

PRIVACY submenu

Menu Item	Option	Description
AREA SEL	AREA 1 AREA 2 AREA 3 AREA 4	Select a masking grid (top left, top right, bottom left, bottom right) to modify.
AREA STATE	ON OFF	Activate/deactivate the selected grid.
AREA TONE		Press **LEFT** or **RIGHT** menu control to change the shade of the masking grids.
TOP DOWN LEFT RIGHT		Press **LEFT** or **RIGHT** menu control to alter the dimensions of the selected grid.