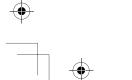


CM8141 WIRELESS VIDEO SURVEILLANCE

Owner's Manual

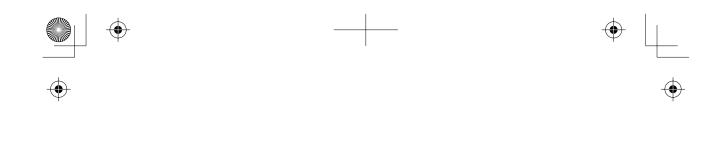
























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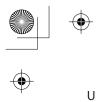




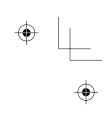
















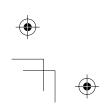
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OVERVIEW



USING THE MANUAL

This manual is set up in eight sections:

- Overview. This general section tells you how to use this manual. It also lists the system's features.
- Getting Started. This section lists the hardware that should have been in your box and how to set it up.
- Basic Operations. This section describes your equipment's function keys in detail. It also provides a list of basic operations in an abbreviated format, referencing screen details in the next section.
- CM8141 Screen Descriptions. Here you will find detailed descriptions of each screen and how it is used.
- Special Features. This section tells you about the CM8141 special features, such as how to connect your surveillance system to Skype[™] and access it from your remote computer or other wired/wireless devices.
- Maintaining Your System. This section provides tips on how to keep your CM8141 hardware clean and in excellent working condition.
- Solving Problems. Troubleshooting tips are located here.
- Specification. This last section contains hardware and software specifications.

If any items are missing or damaged, contact our Customer Care Line immediately. Never use damaged products!

CM8141 FEATURES

- 4.3" LCD monitor with built-in rechargeable Lithium Polymer battery (up to 4.5 hours)
- Up to 500 ft. wireless transmission range
- Up to 40 ft. motion detection/night vision range
- Camera out of range alert
- Record to microSD card (4GB microSD card included but will support up to 32GB)
- Built-in microphones and speakers (cameras and monitor) support Intercom function for two-way audio communication
- IP65 weather-rated VGA resolution cameras (2 included)
- System expandable up to 4 cameras total (additional cameras sold separately)
- Simultaneous Quad view
- Digital zoom, pan, and tilt
- Schedule recording setting
- AV Out to view video on TV
- USB Out for remote Skype™ connection





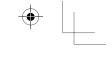






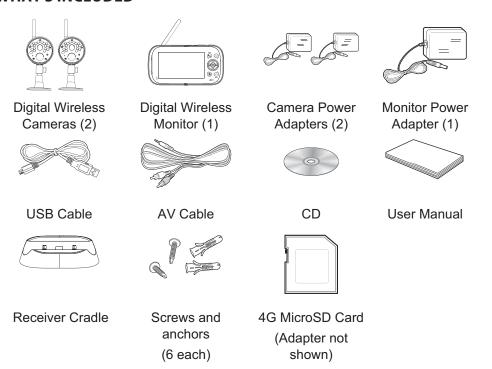








WHAT'S INCLUDED



If any items are missing or damaged, contact our Customer Care Line immediately. Never use damaged products!

INSTALLATION

General Placement Considerations

The cameras included with your monitor are weatherproof and have an IP65 weather rating. Water can be sprayed on them and they will still work; however, the cameras cannot be submerged underwater.

Although the cameras can be exposed directly to the rain, it is recommended that, if they are used outdoors, they be mounted under some type of cover like a patio overhang or eave. As rainwater drops start to dry on the camera glass, it can create spots that will reflect the light from the infrared LEDs used for night vision, thus causing lower quality video.

Also, as dust, grime, and cobwebs accumulate on the camera glass, they can reflect light from the infrared LED and might lower video quality. Periodically clean the lens glass with a soft cloth.

Consider the following when placing cameras:



6

















- Clear line of sight video transmission distance is up to 500 ft.
 - Walls, especially brick and concrete, shorten the transmission distance.
 - Placement next to windows allows better transmission.
- Avoid having a direct light source in view of the camera. This includes street lights, ceiling or floor lamps, spotlights in the driveway, etc.
- The cameras are equipped with built-in infra-red LEDs so you can use night vision for 24-hour surveillance. The LEDs automatically activate at night and the picture viewed turns to black and white. The night viewing range is up to 40 ft. Avoid pointing the camera lens directly at clear glass; the night vision LEDs will cause a blurred image.
- Optimized motion detection range is up to 40 ft. The farther away an object is, the less accurate the motion detection.
- Avoid pointing the camera directly at any bushes, tree branches, or moving objects
 that might naturally move due to winds. Otherwise, the motion detection feature may
 record unnecessarily.
- Out of Range displays when the monitor and camera are too far apart. Reposition the equipment.
- A Low Battery icon displays when you need to recharge the battery.

Installing Your Monitor

Out of the box, your monitor has enough power to be used when you place and install the cameras. You can check the camera placement and angle before you physically screw the camera stands into place.

After you have installed the cameras and set up the monitor, plug the AC adapter power output cable into the 5V POWER input of the cradle or monitor. Plug the power plug into a wall outlet or surge protector.

If you are powering the monitor through the cradle, insert the monitor into the cradle at this point.

Installing the Camera

You can mount the camera with the stand on the bottom (for a flat surface such as a tabletop), on the side (for a wall), or on the top (for the ceiling). When you are positioning the camera, you might want to bring the monitor along; it's much easier to get the camera into the right position when you have the monitor handy.

Mount the Camera Base

The following tools are required:

- Electric Drill
- 5mm Drill Bit
- No. 2 Philips Screwdriver
- 1. Hold the base of the camera stand where you want to mount it and mark the location of the screw holes.

















Attach the camera



- 2. Drill holes using the 5mm drill bit.
- 3. Insert anchors.
- 4. Use the included screws to attach the base to the wall or ceiling. You can also screw the base into a flat surface such as a tabletop if needed.



5. Before attaching the camera, tug gently on the stand to make sure it is securely in place.

Attach the camera

- For each camera, attach
 the camera bracket to the
 mounting screw. You can
 attach the stand to the top or
 the bottom of the camera as
 needed. Tighten it a few turns,
 then turn the camera to face
 the direction you want.
- Tighten the camera brace up against the camera to secure it into place.
- 3. Unlock the mounting post by turning the wingnut to the left a few turns.
- Set the mounting post to the correct angle, then tighten the wingnut until the post is locked into place.
- Tighten the brace against to the mounting the camera to screw and turn it secure it to the desired in place. direction. Loosen the wingnut to Adjust the post to unlock the mounting the correct angle, then tighten the wingnut to lock the post into place.

5. Attach the antenna to the rear of the camera.

Power Up the Monitor

- 1. Press and hold the **POWER** button on the left side of the monitor for 1 2 seconds to turn it on.
- 2. The monitor displays the title screen and then displays the live view.





















Power Up the Camera

- 1. Connect one end of an AC adapter to the camera's power pigtail and plug the other end into a 120 volt AC (standard indoor) power outlet.
- 2. Cameras provided in the kit are already paired to the monitor. Once they are powered up, the monitor displays images from that camera.
- 3. Adjust the camera viewing position if needed.

If	Try this
there is no camera picture	Verify that the power supply adapter for the camera(s) is plugged in.
the picture quality is poor	Clean the camera lens.
a white image appears at night	The camera's infra-red LED shines invisible light that reflects off surfaces such as glass, causing white light. Place the camera on the other side of windows with the lens flush against the surface to improve the night vision, or place the camera in a well-lit area.













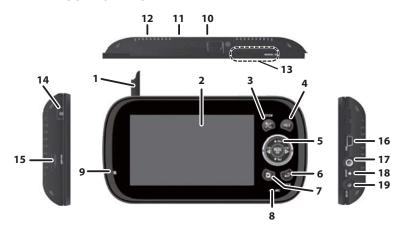






BASIC OPERATION

WIRELESS MONITOR



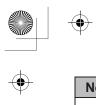
No.	What it does
1	Antenna: Receives signals (video and audio) from cameras.
2	LCD Screen: Displays video from the cameras.
3	Zoom (+/-) : Set the image to double size. In Zoom mode, use the navigation buttons to see the parts of the image not displayed on the LCD screen. Return it to original size by selecting Zoom again.
4	Talk: Press and hold while in Live view mode to talk to the camera side.
5	Navigation Controls: Use the controls in Live view, Menu mode, and Playback mode. You can use these controls in Zoom mode as well. Vol, Vol • Move up or down in Menu mode. • Increase or decrease the volume in Live view. • Play and Pause in Playback mode (Vol). • Stop in Playback mode (Vol).
	 Move left in Menu mode. Press this button to change viewing camera channel in Live view. Fast backward in Playback mode.









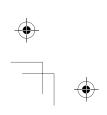






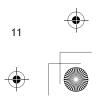


No.	What it does	
	CH D	
	D	
	Move right in Menu mode.	
	Press this button to change viewing camera channel in Live view.	
	Fast forward in Playback mode.	
	Menu/OK	
	Press to access the CM8141 menu.	
	Confirm selections in Menu mode.	
6	Back: Press this button to return to previous screen.	
7	Video Playback: During live video, press to go to the Play File screen.	
8	Microphone: For two-way audio to camera.	
9	Power On LED	
	• On = Battery capacity good	
	• Flashing = Low battery	
10	Monitor Stand: Built-in stand for when monitor is not in cradle.	
11	Speaker: Output sound received from camera.	
12	Reset Button : Insert a blunt thin object (such as an unbent paper clip) into the reset button hole on the back of the monitor.	
13	Manual Rec : Press this button to start Manual Recording mode. Press again to stop recording.	
14	Power button : Turns monitor on and off. (Press and hold a few seconds longer to turn monitor off.)	
15	microSD: microSD card slot.	
16	USB Port : Uses USB cable to connect the the monitor to the computer for remote access using Skype [™] .	
17	AV OUT : Uses A/V cable to connect the monitor to the TV to view live video.	
18	Charging LED indication:	
	Green = Battery is fully charged.	
	• Red = Battery is charging.	
19	Power input (DC 5V) : Connect the included 5V DC power adaptor to power the monitor and/or charge the monitor battery (when the monitor is not in the cradle).	



















WIRELESS CAMERA



Front & Back Controls

No.	What it does
1	Camera Antenna: Sends signals to the monitor.
2	Light sensor: Measures light intensity to activate IR LEDs for night vision.
3	Microphone: Receives sounds from the area near the camera.
4	PIR sensor: Detects motion within camera's line of sight.
5	Camera Lens: Mechanism through which the cameras view surroundings and record images.
6	Infrared LED: Infrared LEDs provide viewing in no/low light conditions.
7	Pair: Press this button to pair the camera to the monitor.
8	Camera stand: Connects to the camera to allow multiple mounting positions.
9	Speaker Transmits sound from the monitor (intercom).
10	Power Input (9V DC): Connect to power adapter.











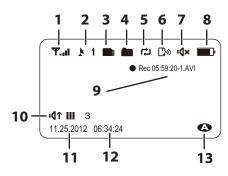








LCD DISPLAY



No.	What it does			
1	Signal Indicator: Shows the camera's signal strength.			
	Signal Strength	Indicator	Warning	
	Perfect	T1	None	
	Good	Ψ	None	
	Fair	Ψ.,	None	
	Low	₹.	None	
	No Signal	Ŧ	Out of Range	
2	Channel indicator: Displays the current channel number. Press or to switch between available cameras.			
3	MicroSD Card indicator: Displays if there is a microSD card in the slot. A white icon indicates a microSD card has been inserted. A red icon indicates microSD card memory is full.			
4	New Record indicator: Displays and flashes when a new recorded file is available.			
5	Overwrite indicator: Choose Yes to enable the overwrite function in recording setting. This means the video monitor will overwrite old video files once the card is full.			
6	Talk Back: Displays when TALK is pressed.			
7	Mute: Displays when volume is turned off.			
8	Battery : Indicates the amount of power remaining in the batteries. The con displays when the battery is charging			



















No.	What it does
9	Current Recording Status: Displays when the monitor is recording video. The file name displays in hour/minute/second/recording camera format (05.59.20-1).
10	Volume indicator : This icon displays when you press ▲ Vol or ▼ Vol . An arrow indicates the last volume adjustment direction and status bars indicate the volume level.
11	Current Date: Displays the date in MM.DD.YYYY format.
12	Current Time: Display the time in HH:MM:SS format.
13	Auto Recording indicator : Icon appears when the camera's motion detection function has been triggered. The camera records for 15, 30, or 60 seconds, depending on how it is set in the <i>Trigger Recording Time</i> screen. You can also select OFF to disable the function.

USING THE CM8141

Viewing Modes

In Live view, video displays live images from the camera in the following modes:

- □ Quad mode: Monitor displays video from all cameras on a single screen in 4 quadrants.
- □ Single mode: Monitor displays video from one camera at a time.
- ☐ Scan mode: Monitor displays video from one camera at a time, but cycles through all cameras one by one.

Common Operations

То	Do This
Change between quad view, single view, and scan for Live	From Quad view, press to cycle the screens in the following order:
view	Scan - CH1 - CH2 - CH3 - CH4 - Quad
Manually start recording	Press MANUAL REC on top of the monitor (see page 27).
Set up to record automatically	Refer to Schedule Recording from the Record menu (see page 25).
Manually stop/cancel recording in Manual, Motion, or Schedule Record mode	Press MANUAL REC on top of the monitor (see page 27).

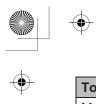










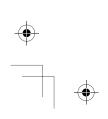








То	Do This		
Manually cancel a Scheduled	Select Record/Schedule Record.		
Record	Select the specific day whose recording schedule you want to cancel.		
	3. When that day's schedule displays, use or		
	buttons to turn that day's schedule to Off (see page 25).		
Playing back a recording on the CM8141 monitor	Press . The <i>Play File</i> screen displays. See page 27 for details.		
Cancel watching a recorded video	Press .		
Watching recorded video on PC or television	To view on PC: Place the CM8141's microSD card in the PC's memory slot (microSD card adapter included). You can play the files from the card itself or copy the files to your computer and play them from that destination. To view on TV: Use the AV cable to connect the monitor to the TV. Use the monitor's control		
	buttons to access the recorded video on your system's microSD card.		
Set the date and time	See System/Date&Time, page 19.		
Transfer a recording from the monitor's SD card to the	Remove the memory card from the monitor and insert it in an adapter.		
computer.	2. Insert the SD adapter into your PC.		
	Select a destination to store the files.		
Watch live video on your smartphone	 Be sure both your home computer and smartphone/device have Skype™ accounts. 		
	2. Set up your home computer to view live video.		
	 Use Skype[™] on your smartphone/device to call your home computer. 		
	When you are connected, you will see live video. (See page 29 for details.)		
Adjust CM8141 volume	 Press ▲Vol (increase volume) or ▼Vol (decrease volume) when viewing a camera. 		
	2. The 'd' icon displays, then turns off after 5 seconds of inactivity.		

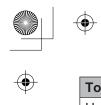




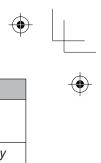








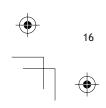






То	Do This	
How do you use the Intercom?	1. Press and hold TALK.	
	2. Release to hear reply.	
How do you delete individual recorded files?	Select the red X next to the file name on the <i>Play File</i> screen. See page 28 for details.	



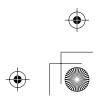




















CM8141 SYSTEM MENUS

Press to access the CM8141 system menu options. Use the navigating buttons to navigate up/down/left/right in the menu, and press **MENU/OK** to confirm a setting.

The Main menu options are:

- □ Alert
- Power Save
- □ System
- □ Camera
- □ Record
- 1. Press or to change options. The icon for the selected option enlarges.



2. Press MENU/OK to select that option.

ALERT

This option allows you to set the alert volume for the unit. There are 6 levels plus off. [Default = Off (mute)].



Press or control to increase or decrease the alert volume.











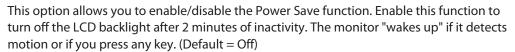








POWER SAVE





SYSTEM

These system setup options allow you to configure your system according to your personal preferences. Use the directional arrows to select one of the six options:

- Date & Time
- Brightness
- Format
- Default
- Language
- AV Out























Date & Time



The Month option is automatically selected when you select Date & Time.

- 1. Press **▲ Vol** or **▼ Vol** to scroll through the options for that selection.
- 2. Press or to switch to another section of the date or time. Press ▲ Vol or ▼ Vol to scroll through the options as before.
- 3. Press MENU/OK to save the current setting and return to the System screen.

Time displays in "Military" time (i.e., 00-24 hours). For example, 14:30 would be 2:30 PM.

Brightness

This option allows you to change the LCD brightness. There are 6 brightness levels. (Default = 3)



- 1. Press or to increase/decrease the brightness level (0 6).
- 2. Press **MENU/OK** to save and return to the *System* screen.

Format

This option allows you to format the external storage (microSD) card, deleting all files on that card. (Default = No)

Be careful when using this feature. All files on the microSD card will be erased.























- 1. Insert a microSD card into the monitor if needed.
- 2. Select Yes, then press MENU/OK.
- FORMAT displays; once formatting is complete, the System screen displays.
 If you try to format the microSD card but no microSD card is inserted, NO SD CARD displays.

Default

This option allows you to restore the CM8141 to factory settings. (Default = No)

Camera pairings and date/time settings are not affected by a reset.



- 1. Press ▲ Vol or ▼ Vol to select either No or Yes for this option.
- 2. Press **MENU/OK** after you make your selection. The *System* screen displays.





















Language

This option allows you to select the display language for the system. (Default = English)



- 1. Press **▲ Vol** or **▼ Vol** to select a language.
- 2. Press MENU/OK after you make your selection. The System screen displays.

A/V Out

This option allows you to select the TV output format. (Default = NTSC)

NTSC is the TV standard in North America.



- 1. Press **▲ Vol** or **▼ Vol** to select either *NTSC* or *PAL* for this option.
- 2. Press **MENU/OK**; the System screen displays.

CAMERA

This options allows you to pair the monitor with up to 4 cameras or turn on/off individual channels (cameras). Press ▲ Vol or ▼ Vol to select PAIR or On/Off for this option.

The two cameras that come with your system are paired to the monitor at the factory.





















Pair

Select this option if you are pairing accessory cameras or changing a camera's channel assignment.

1. Press **▲ Vol** or **▼ Vol** to select the camera you want to pair to the monitor.



- 2. Press MENU/OK.
- 3. An information message displays, indicating that you have 30 seconds to press the pairing button on the front of the camera.
- 4. The camera video displays when that camera has paired.

On/Off

This option allows you to turn an individual channel on or off. The camera will remain powered on but the monitor will no longer receive video and audio.





1. Press **▲ Vol** or **▼ Vol** to select the channel whose status you want to change.



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- 2. Press or to change the setting (On or Off).
- 3. Press **MENU/OK** to confirm the setting. The main *Camera* screen displays.

RECORD

The *Record* screen contains 5 sub-screens that help you establish the quality level of your recordings and a repeatable one week recording schedule.

- Video Quality
- Trigger Recording Time
- Motion Sensitivity
- Schedule Recording
- Overwrite



Video Quality

This option allows you to preset the output video quality for the unit. (Default = High 640×480)



- 1. Press **▲ Vol** or **▼ Vol** to choose between higher quality (*High 640x480*) and lower quality (*Low 320x240*) video output.
- 2. Press **MENU/OK**. The *Record* screen displays.

Trigger Recording Time

Various things can alert the system to begin recording. These triggers range from the wind blowing a tree branch into tan outside camera's line of sight to someone walking into a



















room. This option lets you set how long the system will record once it has been triggered. (Default = 30 s)





- 1. Press **▲ Vol** or **▼ Vol** to select the recording time.
- 2. Press MENU/OK.

If you select Off, the system won't start to record, even if a trigger occurs and motion detection is enabled.

If you select a recording duration (15, 30, or 60 seconds), (15) displays during recording.

3. The Record screen displays.

Motion Sensitivity

This option allows you to set the motion sensitivity for each channel individually. For example, if Camera 1 is an outside camera, you could set the sensitivity lower. This could keep the cameras from triggering over small movements, such as the breeze moving a tree branch. (Default = Low)

 Press ▲ Vol or ▼ Vol to select the channel whose sensitivity you want to adjust and press MENU/OK.





















2. The camera's sensitivity levels display on the next screen. Select the sensitivity level and press **MENU/OK**.





3. The Motion Sensitivity screen displays again.

Schedule Recording

This option allows you to create a weekly recording schedule. This weeky schedule repeats until you change it. You can set each day separately, and you can also set that day's schedule to turn on or off. For example, if you have camera 1 set to record your back yard every evening from 20:00 hours (8:00 PM) until 23:00 hours (11:00 PM) but you will be having a party in the back yard that evening, you can turn off that day's scheduled recording. (Default = Monday / Start Recording Time:00:00 / End Recording Time: 00:00 / Off)

1. From the *Record* screen, select *Schedule Recording* and press **MENU/OK**. The *Schedule Recording* screen displays. Select a day and press **MENU/OK**. The start and end time setting screen for that day displays.





- Using ▲ Vol or ▼ Vol, scroll to set the recording start and end times. Press after each selection to move to the next. For example, set Start Recording Time Hours, then press to move to Start Record Time Minutes.
- 3. After you set *End Recording Time* and press ▶; set the recording schedule for that day on or off. Use the directional arrows (or off.) to select *On* or *Off*.
- 4. Press MENU/OK to set your selection. The Schedule Recording screen displays.



















Overwrite

When the microSD card is full, the new video recording overwrites the oldest video recording. Select $\it Yes$ to enable this function. (Default = No)























SPECIAL FEATURES

RECORDING VIDEO

Video records on the 4GB microSD card included in your package (the CM8141 will support up to a 32GB microSD card). You can set up a recording schedule so the CM8141 records automatically (see page 25), or you can manually start recording.

Manual Recording

Be sure a microSD card is inserted into the microSD card slot.

- 1. Press Manual Rec on the top of the monitor. The monitor records in 10 minute blocks.
- 2. Press Manual Rec again to cancel manual recording.

In Recording mode, only the TALK button and sound are active.

When there is new recorded file, (yellow) flashes on the LCD screen. When the microD card is full, (red) flashes.

VIEWING RECORDED VIDEO

- 1. Press to enter the *Play File* list.
- 2. Select the Video folder and press 💽
- 3. That folder contains other folders sorted by date (Format = YYMMDD). For example: 120330 means the videos in this folder are recorded on March 30th, 2012. Press ▲ Vol or ▼ Vol to select a folder you want to view and press MENU/OK to open that folder and browse the files inside.

If there are multiple pages of folders, press to move to the next page. Press to return to the previous page.

4. Inside that folder are record files, sorted by time. For example: 123030_1 means the video is recorded at 12:30:30 and from camera 1.



- Select the video you want to view and press MENU/OK. The video plays on the LCD screen.
- 6. Use the navigation buttons to manage the video:
- **▲ Vol** Pause, play video



















- ▼Vol Stop
- 👸 Forward (up to x16 speed)
- 🚰 Backward (up to x16 speed)
- 🗐 Exit the video

DELETING RECORDED FILES

You can delete a specific recorded videofile or an entire folder of files. A red "X" displays to the right of folders and recorded video files on the *Play File* screen.

- 1. Press to highlight the red "X" beside the folder or file you want to delete. Press
- 2. A confirmation screen displays. Use 👸 or 🥰 to select Yes. Press MENU/OK.

USING THE INTERCOM

The Intercom feature lets you talk to whomever is within camera range.

- 1. Make the camera you want to establish an intercom link with the full screen live view camera.
- 2. Press and hold on the monitor.
- 3. Speak clearly into the microphone.
- 4. Release to listen to the response.

VIEWING LIVE VIDEO

The CM8141 let you view live video from your system on your television or home PC. You can also use Skype™ to view your system on a remote PC or wireless devices such as an iPhone®, iPad®, or Android™ smartphone or tablet.

Viewing On Your TV

- 1. Connect the monitor to your television using the AV Output cable (included).
- 2. The monitor screen goes blank and the TV screen displays the camera output.

The monitor controls still operate while the system is connected to the TV. You can change cameras, set the cameras to scan through each in sequence, etc.

Viewing On Your Computer

Insert the CD included in your package into your PC.
 For Windows: Select the USB Driver file and double-click to run the program.
 For MAC: Double-click on the .MAC driver to release the ZIP file. Locate the PKG file and double-click to run the program.



















- 2. For Windows: Follow the instructions from the InstallWizard. Select *Finish* to complete the installation. *Found New Hardware* displays.
 - For MAC: Follow the instructions on the screens. Select *Close* to complete installation. An *Installation Successful* screen displays.
- Connect your home computer to the monitor with the USB cable (included). The
 monitor screen goes blank and the PC displays the camera video. Your CM8141
 system is now connected to your home PC.

Viewing on Your Wireless Device or Remote Computer

Setup

- 1. Follow the procedures to view live video on your computer (see page 28).
- 2. Set up a Skype[™] account linked to your CM8141. Please refer to www.skype.com for details on setting up this free account.

Be sure the Skype[™] account is set to "Auto Answer."

- 3. Set up a Skype[™] account on your wireless device or remote computer.
- Invite the other Skype[™] account into your contacts; accept the invitation from the invited account.

Viewing

- 1. Determine which camera you want to be available for remote viewing. Set it as the Live view camera (see page 14).
- 2. If you have not already installed the USB driver, install it now (see page 28).
- 3. Connect the CM8141 to your home computer using the USB cable.
- Activate Skype[™].
- From your wireless device or remote computer, call the Skype™ account for the CM8141. Because that account was set up with Auto Answer, you should see live vide from the camera you set up in Step 1.

You must have a separate Skype[™] account to call the home computer. You cannot use your home computer's Skype[™] account to call itself.

VIEWING RECORDED VIDEO ON YOUR COMPUTER

The files that record on the CM8141 record onto the microSD card in AVI format. You can take that card and play it on your computer. You will need:

- □ CM8141 microSD card
- MicroSD card adapter for laptop (included) or SD card reader for other systems (not included)
- Remove microSD card from the CM8141. Place it in the adapter and insert adapter into your PC.
- 2. Navigate to the SD card on your system.

















- 3. Select the files you want to view and click Open.
- 4. The files begin playing, in order, through your default media player.

PAIRING ACCESSORY CAMERAS

The two cameras that come with your CM8141 are paired to your monitor at the factory. If you add cameras, install them and then pair the camera to the monitor.

- 1. Press **MENU/OK** to bring up the *System* screen.
- 2. Select the Camera option.



3. Select *Pair* and then press **MENU/OK.** The *Pair* screen displays. The pairing function assigns each camera to a different channel on the wireless monitor (up to 4 cameras), and is necessary for configuring additional cameras.



- 4. Select the channel you want to pair the camera to and press **MENU/OK**. The *Press Pair Key* message screen displays.
- 5. Within 30 seconds, press **PAIR** on the camera's face. Once the camera pairs to the monitor, it will be immediately viewable on the monitor.



















MAINTAINING YOUR SYSTEM



MONITOR

As you use your monitor, keep the screen clean by wiping it with a microfiber cloth to remove fingerprints, dust, etc.

CAMERAS

When dust and grime builds up on the camera lens and glass, it affects night vision capability. The infrared light reflects off of the dust and grime, limiting the camera's "vision." Use a microfiber cloth to regularly clean the cameras or when night vision video is cloudy or unclear.























TROUBLESHOOTING

If you have problems with the system, there is often a quick and simple solution. Please try the following:

Problem	Solution
No picture	Check all camera connections.
	Verify that the AC adapter is plugged in.
	Make sure the monitor is ON.
	Make sure the camera is in range.
The picture keeps	Move the camera closer to the monitor.
dropping	Reposition the camera , monitor, or both to improve reception.
No sound	• Increase the volume.
	Make sure there is sound within range of the camera's microphones.
Loud, screeching noises (Audio feedback)	Move the camera and the monitor farther apart.
The picture is choppy	Move the camera and monitor closer to each other.
	Remove any obstructions between the camera and monitor.
The picture appears grainy	View files on a smaller TV/PC monitor.
(using AV Out to view on TV/Monitor)	Try viewing through your TV's Picture-In-Picture function, if available.
Recording problems	Make sure the microSD card is inserted correctly.
	Check that the microSD card memory is not full.
	Verify that the microSD card is compatible with the
	CM8141. It can support up to 32GB microSD card.



















SPECIFICATIONS



MONITOR

General

Operating frequency range	2.400 ~ 2.4835GHz
RX sensitivity	- 81dBm
Spread spectrum	FHSS
Modulation type	GFSK
Data Rate	2 Mbps
Communication range	500 ft Line of Sight

Monitor

Display size/type	4.3" TFT LCD
Resolution	H: 480; V: 272
Power requirement	5.0V DC ± 5%
Power consumption	350mA (Normal)
	900mA (Charging)
Operating temperature	– 10 ~ 40° C
range	
Operating humidity range	Within 85% RH
RoHS Compliance	Yes
Battery life	4.5 hours
Private ID for connection	Yes
Recording storage	4GB microSD card (included). Supports up to 32GB.
Housing material	Plastic

















CAMERA

General

Operating frequency range	2.400 ~ 2.4835GHz
TX power	15dBm (typical)
Spread spectrum	FHSS
Modulation type	GFSK
Data Rate	2 Mbps
Communication range	500 ft Line of Sight

Camera

Image sensor type	1/4" color CMOS image sensor (OV7725)
(Manufacturer/Model #)	
Effective pixel	H: 640; V: 480
Image processing	MJPEG
Image resolution	640x480 @ 10fps
	320x240 @ 20fps
Lens	3.6mm F2.0
Exposure	Auto
White balance	Auto
Power requirement	9.0Vdc ± 5%
Power consumption	160mA (IR LED Off)
	350mA (IR LED On)
Operating temp range	−10 ~ 50° C
Weatherproof	IP65
RoHS Compliance	Yes
Camera Housing Material	Plastic

Recycling and Disposal Information

- ← Do not dispose of electronic devices or any of their components (especially batteries and LCD displays) in your municipal trash collection.
- ← Consult your local waste management authority or a recycling organization like **Earth911.com** to find an electronics recycling facility in your area.
- ← If you are unable to locate proper recycling facilities in your area, please return this product to for recycling.



















FCC Compliance Information

Part 15 Compliance Statement

This device complies with Part 15 of the FCC Rules. Operation is subjected to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with limits for a Class B digital device, pursuant to Part 15 of the FCC rules and ETSI (EN) 300328. These limits are designed to provide reasonable protection against harmful interference in residential installations. 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 a particular installation. If this equipment does cause interference to radio or television equipment 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.
- ▶ Move the equipment away from the monitor.
- ▶ Plug the equipment into an outlet on a circuit different from that to which the monitor is connected.
- ► Consult the dealer or an experienced radio/television technician for additional suggestions.

CAUTION! Any changes or modifications to this equipment not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

RF Exposure Information

The antenna used for this transmitter must be installed to provide a separation distance of at least 20 cm (7.9") from all persons and must not be collocated or operating in conjunction with any other antenna or transmitter.

IC Compliance Information

Radio Equipment Notice

The term "IC:" before the radio certification number only signifies that Industry Canada technical specifications were met. Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired



















operation of the device. "Privacy of communications may not be ensured when using this device".

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CE Compliance Information

Products with CE Marking comply with EMC Directive (2004/108/EC); Low Voltage Directive (73/23/EEC); R&TTE(1999/5/EC) issued by the Commission of the European Community. Compliance with these directives implies conformity to the following European Norms:

← EMC: EN 301 489← LVD: EN 60950← Radio: EN 300 328







