



Operating Manual

Version 1.0.0

An online manual is available at CuddeLink.com. We recommend you download and read that manual instead of this one. It is more detailed and more current than this manual.

FCC Notice

This device complies with Part 15 of the FCC Rules. Operation is subject 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.

changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Please notice that if the FCC identification number is not visible when the module is installed inside another device, then the outside of the device into which the module is installed must also display a label referring to the enclosed module. This exterior label can use wording such as the following: "Contains FCC ID: 2AJYQ-17R1-0915M-02" any similar wording that expresses the same meaning may be used.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator & your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

The module is limited to OEM installation ONLY.

The OEM integrator is responsible for ensuring that the end-user has no manual instruction to remove or install module.

The module is limited to installation in mobile application;

A separate approval is required for all other operating configurations, including portable configurations with respect to Part 2.1093 and difference antenna configurations.

There is requirement that the grantee provide guidance to the host manufacturer for compliance with Part 15B requirements.

IC Notice

This device complies with Industry Canada license-exempt RSS standard(s). 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.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Please notice that if the IC identification number is not visible when the module is installed inside another device, then the outside of the device into which the module is installed must also display a label referring to the enclosed module. This

exterior label can use wording such as the following: "Contains IC: 22791-17R10915M02" any similar wording that expresses the same meaning may be used.

L'étiquette d'homologation d'un module d'Innovation, Sciences et Développement économique Canada devra être posée sur le produit hôte à un endroit bien en vue, en tout temps. En l'absence d'étiquette, le produit hôte doit porter une étiquette sur laquelle figure le numéro d'homologation du module d'Innovation, Sciences et Développement économique Canada, précédé du mot « contient », ou d'une formulation similaire allant dans le même sens et qui va comme suit : Contient IC : 22791-17R10915M02 est le numéro d'homologation du module

This equipment complies with FCC/IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

ce matériel est conforme aux limites de dose d'exposition aux rayonnements, fac / ic rss-102 énoncée dans un autre environnement. cette equipment devrait être installé et exploité avec distance minimale de 20 entre le radiateur et votre corps.

READ THIS MANUAL

The difficulty with explaining CuddeLink concepts is it is easier to use CuddeLink then it is to explain. We recommend you read this manual twice. After which you will find setup and deployment very easy.

Online Videos

We also recommend you watch our tutorial videos at CuddeLink.com

Email Support

Due to the advanced nature of this technology we do not offer phone support. All support must be via email. Visit CuddeLink.com to email us and your questions will be answered by the engineers and technicians who designed CuddeLink.

SD Card

Every CuddeLink camera must have an SD card installed. Any size card from 2GB to 32GB can be used. We recommend you use name brand quality SD cards.

Batteries

CuddeLink requires more power than a conventional trail camera. DO NOT USE CHEAP or USED BATTERIES. Only use name-brand, from-the-store-new batteries.

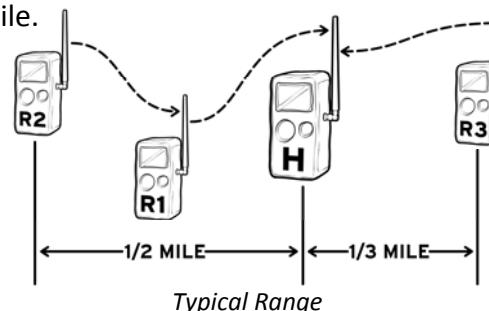
What CuddeLink Does

Hunters know the importance and benefits of using multiple trail cameras. But checking these cameras can be a time consuming task that takes away from hunting time and pollutes the area with human scent.

Cuddeback's patent pending CuddeLink eliminates checking multiple cameras and utilizes 1 camera as an image depository for up to 15 remote CuddeLink cameras.

CuddeLink is a wireless network of cameras that transmit their images to 1 camera. The depository camera is called the **HOME** camera, and the transmitting cameras are called **REMOTE** cameras.

The cameras can be deployed in any arrangement with the only requirement being that each camera must be in radio contact with another camera and have a link back to Home. Transmission range is highly terrain dependent, but in a forest a range of over 1/3 mile is common, allowing for an end-to-end link of over 4 miles. In open terrain we have tested camera-to-camera transmission to over 1 mile.



One CuddeLink equipped camera must be the HOME camera.

HOME is the camera that collects images from the REMOTE cameras.

TERMS

CuddeLink is Cuddeback's trademark name for Cuddeback's network enabled trail cameras.

CL is an abbreviation for CuddeLink.

Network refers to a collection of CuddeLink cameras that are in radio contact with each other.

Home refers to the camera or device that collects all images.

Remote refers to cameras that transmit images to the HOME.

Repeater refers to a device that acts as a relay station on a CuddeLink network. The REPEATER does not take pictures, it only transmits images from one node to the next node.

Node is a general name for any home, remote and repeater on the network.

Chain is 2 or more cameras that are linked together via the CuddeLink network.

Link is 1 connection from 1 camera to the next camera.

High Resolution Image is the full size image recorded by the camera. These images are always saved on the camera's SD card.

Thumbnail Image is a compressed image that is much smaller than the original image taken by the camera. These are the images transferred to Home. The full resolution image is available on the Remote camera so you do have access to it if needed.

Getting Started with CuddeLink

All CuddeLink cameras **must** have an SD card installed.

The HOME camera saves the images it records & images from the Remotes cameras on the SD card. We recommend a 4 or 8GB card. A 4 GB card will hold 10s of thousands of CuddeLink images.

The REMOTE cameras saves high resolution images on the SD card and saves a thumbnail image in a TX_QUEUE where they are queued for transmission to HOME. A 2GB card or bigger should be used.

This guide assumes you know how to navigate the camera's user interface. All the settings explained in this section are in the **CL MENU** item. To access the CL MENU press MODE until **COMMANDS** is selected, then press MORE until **CL MENU** appears, then press UP.



Press MODE then press
MORE



Set up HOME camera

Set the normal camera parameters as explained in the camera's manual. Date, time, camera delays, etc.

Set **CL MODE** to HOME by pressing UP as needed.



Press UP or DOWN to select
Home



After **CL MODE** is set to HOME, press MORE to continue.

Set **CL LOC** to 001. This is a Location ID number used to identify each camera. We recommend HOME always be set to 001.



Press UP to set CL LOC to 001



Skip over **CL INFO** by pressing **MORE**

Set **CL CHAN** to any number. You can leave this at 1 but we recommend you change this. Pick any channel, but remember what you selected as all cameras must be set to the same channel.



Set CL CHAN to any number



That is all you need to do. The HOME camera is now setup properly. Deploy and ARM the Home camera (Press MODE until ARM is selected).

*Note—the Home camera **must** be armed for the CuddeLink network to function.*

Set up the REMOTE camera

Set the normal camera parameters as explained in the camera's manual. Date, time, camera delays, etc.

Set **CL MODE** to REMOTE then press MORE.



Press UP or DOWN to select Home



Set **CL LOC** to 002. **IMPORTANT** – all cameras should have a unique CL LOC (location) number. We recommend you set Home to 1 and set remotes as 2, 3, 4 and so on.



Press UP to set CL LOC to 002



Set **CL CHAN** to the same channel you set on the HOME camera. **IMPORTANT** – all cameras must be set to the same channel.



Set CL CHAN to same channel as HOME



Leave **CL DELAY** and **CL COUNT** in the default settings of CL DELAY 5 and CL COUNT 250.



Leave these set to defaults

Press MORE to view **RF LEVEL** and observe the display. At first - - - will be displayed to indicate no signal. After a minute or 2 a number will appear that represents the signal strength. If the strength is displayed you can ARM and deploy the camera.

If a signal is not displayed within a few minutes you may be too far from the HOME camera, or HOME may not be ARMed.



Dashes indicate no signal is received

Signal will be displayed as GOOD or POOR.

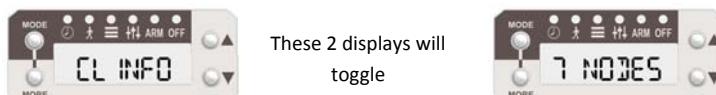
IMPORTANT – CuddeLink transmission distance varies with terrain and distance and can be from 2/10 of a mile to over a mile. Typical range in a forest is 1/4 mile. You must use RF LEVEL to verify you have a signal before you deploy a remote camera.

After a signal is received you must ARM the camera before deploying additional remote cameras. (Press MODE until ARM is selected).

Continue to deploy all your Remote cameras in a similar manner. When deploying a Remote it is good practice to enable CL LEVEL while next to a Home or Remote camera that has been successfully deployed and armed. When a CL LEVEL appears on the camera begin moving to the new location. This method makes it easy to monitor the connection status as you move about.

CL INFO. It is good practice to **verify** that all your cameras connect to Home. After deploying your remotes you should return to the Home camera and use **CL INFO**.

Activate the CL MENU as previously explained, then press MORE until CL INFO. The first CL INFO display will show CL INFO and the number of cameras on the network.



These 2 displays will toggle

From the main CL INFO display press UP and the status of the first camera will be displayed. Continue to press UP to display the status of each camera.

Note - depending upon how many cameras you deployed it may take several hours for the CL INFO to update. If all Remotes are not shown you should wait a few hours and check again. If a camera fails to display see the Troubleshooting section of this manual.

1st Screen	2nd Screen	Explanation
01 / HOME	001 OK	1 st node is HOME with CL LOC 001. Battery is OK.
02 / CAM	005 OK	2 nd node is a remote camera with CL LOC 005, battery OK.
03 / CAM	003 LO	3 rd node is a remote camera with CL LOC 003, battery LO.

Note—CL INFO is also available in the ARMED INFO menu which is accessed by pressing MORE, UP, or DOWN when the camera is armed. See camera's operating manual for details.

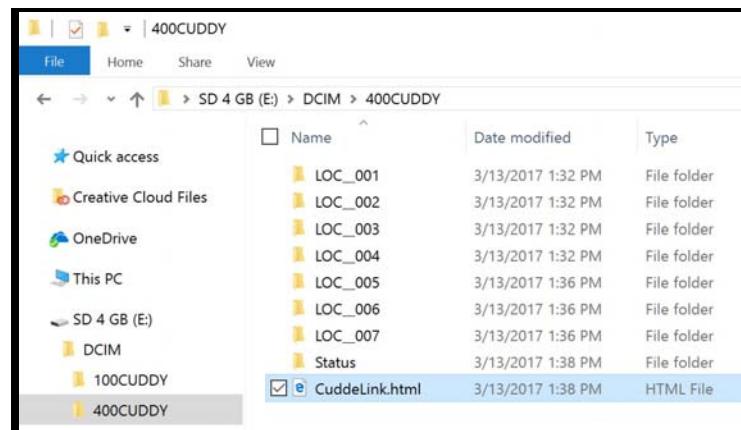
Checking the HOME camera

Checking the CuddeLink HOME camera is similar to checking a conventional trail camera.

- Press UP to put the camera into Armed-Info mode. DO NOT turn off the camera!
- If you continue to press UP status of the Home camera will be displayed.
- Remove the SD card and use your normal image viewing method.

On the SD card is folder named \\DCIM\\400CUDDY. Within this folder are images from the CuddeLink remote cameras. If you used a unique CL LOC then each remote camera's images will be in a different folder within the 400CUDDY folder.

The images taken with the HOME camera are in the \\DCIM\\100CUDDY folder.



Above - Contents of Home SD card. Images from Remote cameras are in the LOC_### folders.

CL MENU Overview

The CL MENU items will differ depending upon if a camera is configured as a HOME, REPEATER or REMOTE.

Home Menu Items

SETTING	RANGE	DESCRIPTION
CL MODE	OFF, <u>HOME</u> , REMOTE, REPEATER	One camera must be set to HOME. All other cameras must be REMOTE or REPEATER.
CL LOC	000 thru 999	This assigns a LOCATION ID to each camera. Assign each camera a unique identification number.
CL CHAN	1 thru 16	Every camera on the network must be set to the same channel.
CL INFO	Not applicable	Displays status information for each remote camera that is connected. Press UP or DOWN to cycle thru the cameras.

Repeater Menu Items

SETTING	RANGE	DESCRIPTION
CL MODE	OFF, HOME, REMOTE, <u>REPEATER</u>	One camera must be set to HOME. All other cameras must be REMOTE or REPEATER.
CL LOC	000 thru 999	This assigns a LOCATION ID to each camera. Assign each camera a unique identification number.
CL CHAN	1 thru 16	Every camera on the network must be set to the same channel.
CL LEVEL	Signal strength	Use this to verify the camera is on the

Remote Menu Items

SETTING	RANGE	DESCRIPTION
CL MODE	OFF, HOME, <u>REMOTE</u> , REPEATER	One camera must be set to HOME. All other cameras must be REMOTE or REPEATER.
CL LOC	000 thru 999	This assigns a LOCATION ID to each camera. Assign each camera a unique identification number.
CL CHAN	1 thru 16	Every camera on the network must be set to the same channel.
CL DELAY	5 seconds to 1 hour	Controls how often images are queued to send.
CL COUNT	ALL, 25, 50, 100, 250	Sets the maximum number of images that will be queued to send. Deletes the oldest images to make room for the newest.
CL LEVEL	Signal strength -- to 99	Use this to verify the camera is on the network and how strong the signal is.
CL CLEAR	Not Applicable	Press UP and all images queued to transmit will be erased.

Caution! Make absolutely sure of the following:

1. All your cameras* are set to the same CL CHAN
2. Each camera has a unique CL LOC number
3. You have a CL LEVEL when you deploy a remote or repeater.

* Cameras also refers to Repeaters and Home Plus

CL MODE sets the camera's CuddeLink mode. Choices are OFF, HOME, REMOTE, REPEATER. Press UP or DOWN to select, then press MORE to continue programming additional CuddeLink settings.

OFF – use this if you do not want this camera to be part of a CuddeLink network. The CuddeLink radio will be disabled.

HOME – Set Home on the camera that collects images. Only 1 camera can be set to HOME.

REMOTE – Set Remote on the cameras that take pictures and transmit the pictures to the HOME camera.

REPEATER – use this when you need a repeater to transmit images, but you do not want the camera to record images. Refer to REPEATER section latter in this manual.

CL LOC (LOCATION) assigns a unique number to each camera on the network. We strongly recommend each camera has a unique number. Refer to section **CAMERA NAMING** for our recommendations on how to use this setting.

CL CHAN (CHANNEL) sets the radio frequency the cameras use to transmit images. All cameras on your network must be set to the same channel. CuddeLink has 16 available channels numbered 1 thru 16. You can choose any number you like, but do not choose a channel number used by another network in the immediate area.

Neighbors. If an adjacent land owner is using CuddeLink you must be on different channels. To determine if a neighbor is using CuddeLink turn off your Home camera and use the RF LEVEL on a Remote camera to *listen* for radio traffic. If a numerical signal is displayed you must select a different channel. With 16 channels available you should be able to find a clear channel.

More than 16 cameras. A single CuddeLink network is limited to 16 cameras. If you require more than 16 cameras you can deploy additional networks. Each network must be assigned a unique CL CHANNEL.

CL LEVEL (Remote only). CL LEVEL is a signal strength meter. The range is 10 (poor) to 99 (best). A level above 20 is sufficient for reliable image transmission. We have successfully deployed networks with signal level as low as 10, however, for best performance try to keep the levels at 20 and above.

- A display of - - - indicates no signal is received.
- It may take up to 2 minutes for the CL LEVEL to detect a signal. If a signal is not received within a few minutes you must move closer to the nearest active camera.
- It is good practice to enable CL LEVEL while next to a deployed camera and then move away from that camera with the CL LEVEL displayed. This allows you to monitor the level as you move further from the deployed camera.
- CL LEVEL will vary and you may see the level fluctuate as you are observing and from day to day.

- If a signal cannot be received you will need to move closer to a connected camera. If you never receive a signal verify the HOME camera is ARMED and the CL CHAN is set to the same number on all cameras.

CL INFO (Home only) displays the status of nodes on the CuddeLink network. This was previously discussed in the **Getting Started** section.

CL INFO file. A detailed status report is available on the Home camera's SD card. Click the file **CuddeLink.html** in the DCIM\400CUDDY folder. Your computer's web browser will display a report that shows detailed status of all cameras on the network.

Look for red & yellow ! symbols on the chart. Those are warnings for

#	Mode	Location ID	Camera ID	Level	Links	Battery	Image Queue	SD Images	SD Free Space	HW Version	FW Version	CL Version
1	Home	000	HOME	-	-	Ext. OK	0	20	3728 MB	G23	5.0.97	5.0.97
2	Camera	010	DRIVE WAY	92	1	OK	0	201	3677 MB	G23	5.0.97	5.0.97
3	Camera	020	FIRST CORNER	50	1	Ext. Low !	0	63	3624 MB	G23	5.0.97	5.0.97
4	Camera	030	TRACTOR ROAD	44	2	Ext. Low !	0	41	3595 MB	G23	5.0.97	5.0.97
5	Camera	040	TAMARACK TRAIL	26	3	Ext. Low !	101 !	2206	1017 MB	G23	5.0.97	5.0.97
6	Camera	050	POPLE TREE	49	3	Ext. OK	101 !	113	3304 MB	G23	5.0.97	5.0.97
7	Camera	060	VISION CORNER	44	4	Ext. OK	0	64	3566 MB	G23	5.0.97	5.0.97
8	Camera	080	HILL TOP	32	5	Ext. Low !	0	31	1112 MB	G23	5.0.97	5.0.97
9	Camera	090	GRAVEL PIT	26	6	Ext. OK	0	27	1774 MB	G23	5.0.97	5.0.97
10	Camera	110	TWIN ROADS	16	5	Ext. OK	0	146	3619 MB	G23	5.0.97	5.0.97
11	Camera	120	BOBCAT PASS	Calculating...	6	Ext. OK	0	69	3691 MB	G23	5.0.97	5.0.97
12	Camera	130	MILLER PARK	Calculating...	6	Ext. OK	0	162	3643 MB	G23	5.0.97	5.0.97
13	Camera	140	POND FIELD	28	6	Ext. OK	0	246	3529 MB	G23	5.0.97	5.0.97
14	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-

signal strength, battery or SD card potential issues. Calculating... indicates that the signal level is not known yet. Links indicates how many other cameras the images route to get Home.

Camera Naming: using CL LOC & CAM ID

Keeping track of the physical location and images from 15 remote cameras is not easy. CuddeLink has 2 features to simplify camera/image management.

CL LOC. You probably do not want images from 15 cameras saved in one folder on your SD card. The Home camera saves the images from each camera in unique folders based upon the remote camera's CL LOC setting. We recommend you assign each remote camera a unique CL LOC number which will determine where images are saved on the HOME camera's SD card. For example:

DCIM/400CUDDY/LOC_001 this is the folder where images from camera CL LOC 001 are saved.

DCIM/400CUDDY/LOC_002 this is the folder where images from camera CL LOC 002 are saved.

DCIM/400CUDDY/LOC_003 this is the folder where images from camera CL LOC 003 are saved.

(Visit CuddeLink.com Learn section for using CL LOC to identify remote cameras when you move them).

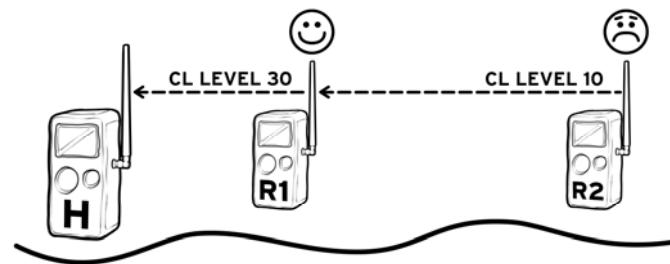
CAM ID. With 15 remote cameras it can be difficult to determine where an image was taken. We recommend you use CAM ID to define the location of the camera as this will make it easy for you to determine where the images were taken. Each time you move the camera you should assign a new CAM ID that defines the new location. Some examples of names that we have used are POND FIELD, VISION TRAIL, HILL TOP. The CAM ID is

printed on the image and makes it easy to determine where an image was taken.

See the camera's operating manual for instructions on how to set CAM ID.

Understanding Transmission Range

The CL LEVEL command is a signal strength meter you use to verify radio reception. The range is - - - to 99 with descriptive words to simplify the meaning. A signal of GOOD is sufficient to assure image transmission. It is ok to have a signal of POOR, but we recommend you try to not use POOR unless at the end of a chain.



We recommend using a map based GPS or online aerial photos to help deploy cameras. A map will allow you to check distance between cameras and observe actual arrangement of cameras.

*Note – Google My Maps is an excellent tool to manage camera location. My Maps uses aerial photos and allows you to place pins where cameras are located and measure the distance between cameras. Use your web browser and search for **Google My Maps** for more information.*

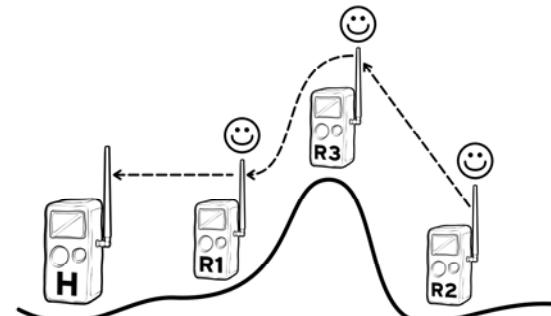
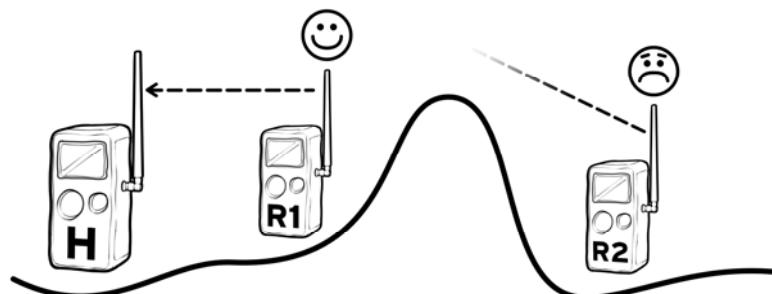
We have successfully tested transmission to nearly $\frac{1}{2}$ mile in heavy forest and to over 2 miles in open terrain. Trees, foliage, elevation, terrain, hills, even humidity can affect transmission range. You will need to experiment and use your GPS, maps, and the CL LEVEL to determine optimum deployment.

Note—transmission range is not predictable and can only be determined by field deploying cameras.

If you discover that your cameras are too far apart to connect you will be required to insert another camera or repeater in-between to connect these cameras.

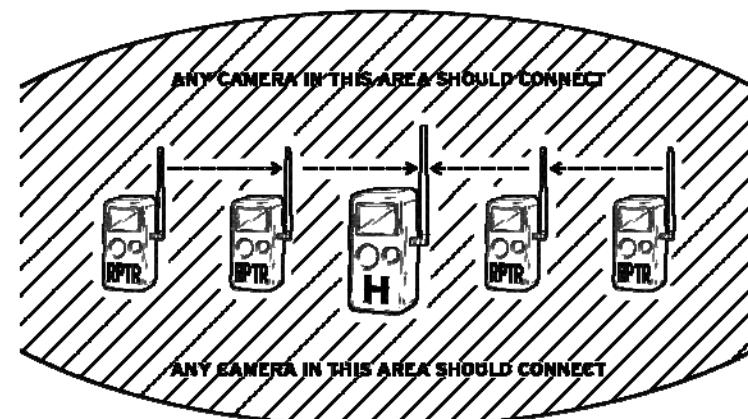
REPEATER. Throughout this manual we mention using a Repeater to extend transmission range. There are 2 products which can be used as a repeater.

- Use a **CuddeLink camera** in Repeater Mode. Set CL MODE to REPEATER
- Use the **CuddeLink Home Plus** in the Repeater Mode. The advantage of this is that it is lower cost than using a camera. See CuddeLink.com for information on the CuddeLink Home Plus.



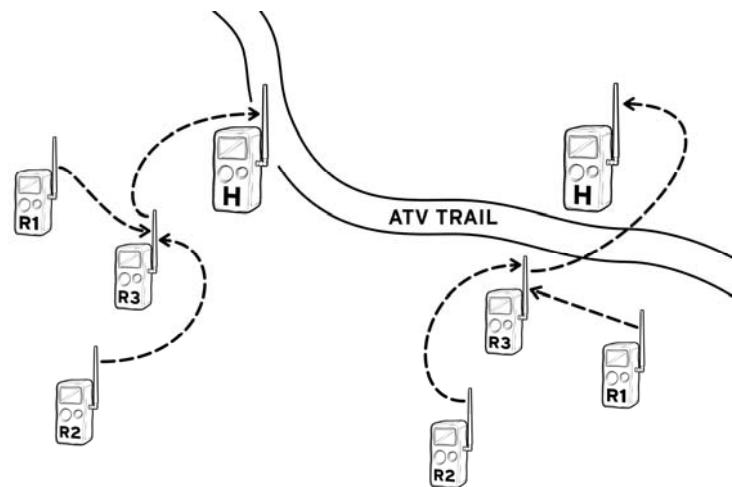
Use a repeater to extend range. A repeater is the best way to transmit over a hill or ridge.

Network Backbone. Deploy REPEATERS on your property to establish a highway-type network that your CuddeLink cameras connect to. You would place the Repeaters in strategic and permanent locations. Then you can move the remote cameras without breaking connections.

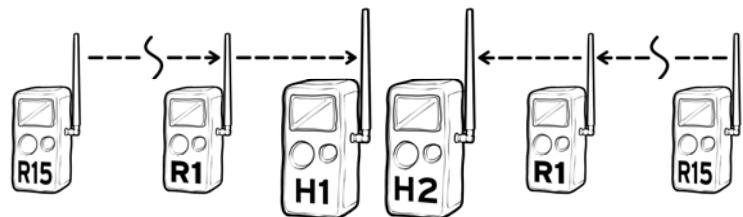


Use cameras or repeaters to create a Network Backbone. A Backbone allows cameras to be moved without breaking links to other remote cameras

Multiple networks can be used to localize cameras. For example, say you have a large piece of property which would require too many cameras to connect end to end. Break the property into smaller areas and deploy a network in each area. You will be required to check multiple cameras, but far less than if you had to check all the cameras.



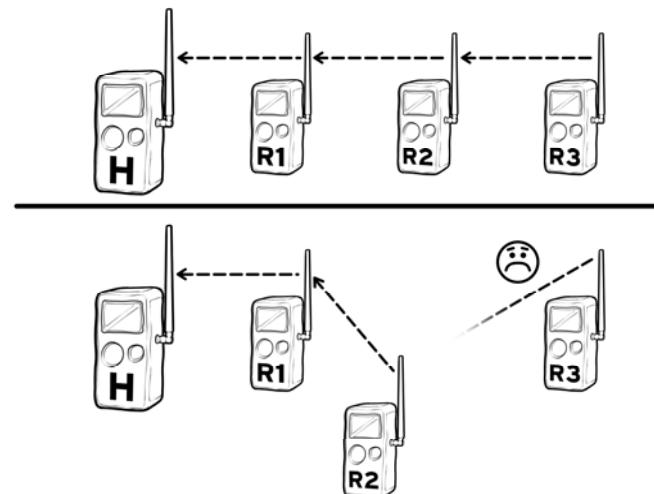
On large properties you can deploy multiple networks.



If you require more than 15 remote cameras you can deploy 2 networks on different channels. The Home cameras can be near each other.

Moving a Remote

Moving a REMOTE camera can disrupt or break your network. Think of your network as a chain of links and you can see that removing one link may break the chain. This means you need to take precautions when moving cameras to assure your network remains functioning.



By moving remote R2 the connection to R3 was broken.

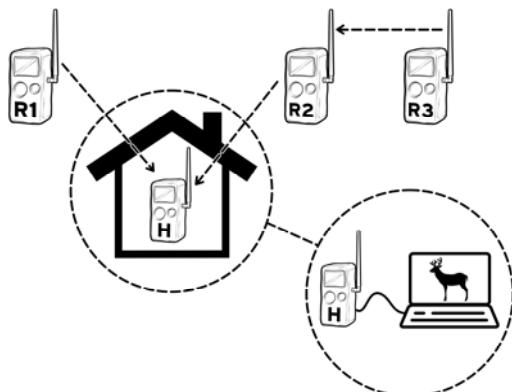
To move a camera we recommend this process:

- Disarm the camera you want to move and enable CL LEVEL.
- Move the camera to the new location and verify CL LEVEL is sufficient.
- Moving the camera may have broken links to other cameras. If you think a link may have been broken you must visit the other cameras to verify their CL LEVEL.

ALTERNATIVE IMAGE COLLECTION METHODS

There are 3 methods to get your CuddeLink images without having to retrieve the SD card from the HOME camera.

PC Image Collection. The [CuddeLink Home Plus](#) product connects to a Windows PC running Cuddeback's Trophy Room PC program. The PC will copy the images from the Home Plus node to the PC. You use your PC to view images.



Internet Connected Windows PC. If your CuddeLink cameras are deployed where you have access to an Internet connected PC you can get CuddeLink images anywhere you have internet access. [And you can do this without an additional monthly Internet fee.](#) Most likely this is a dwelling on the property with Internet access. This Internet access can be from a DSL, Cable, or Cell Modem.

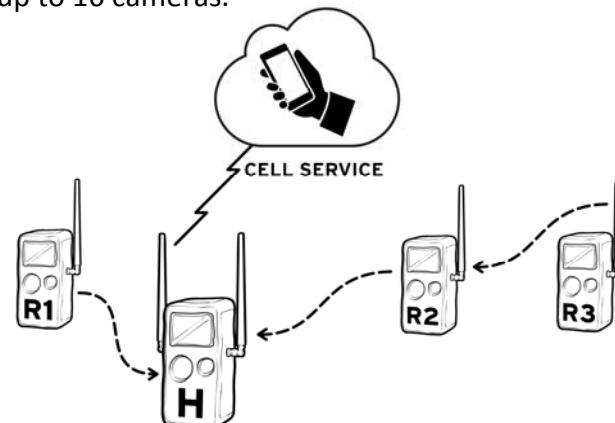
Access is accomplished by connecting the [CuddeLink Home Plus](#) to a Windows PC with Cuddeback's Trophy Room program installed. Trophy Room will copy the

images from the HOME Plus and place them in Microsoft's OneDrive folder to allow you to access the images anywhere with a smart phone, tablet or PC.



Internet access requires CuddeLink Home Plus (sold separately)

Cell Modem. Cuddeback offers the [CuddeCell Modem](#) that attaches to the CuddeLink Dual Flash or Home Plus and allows images to be emailed or texted to a cell phone or computer. This method requires a cell phone contract with additional cell connection fees, but only 1 cell phone connection is required to transmit images from up to 16 cameras.



Note—CuddeCell model 1234 is compatible with Cuddeback Dual Flash mode 1361 and CuddeLink Home Plus model 1234.

Network Control – Overview

If you have 8 or less cameras on the network these setting are probably not important and you can leave them in the default setting. These settings may only need to be adjusted if you are taking more than 500 images per day or your images are taking longer than desired to get Home.

This information can be confusing for first time users. You may want to use the default CL DELAY and CL COUNT setting for the first few weeks and then review this section after you have spent time using CuddeLink.

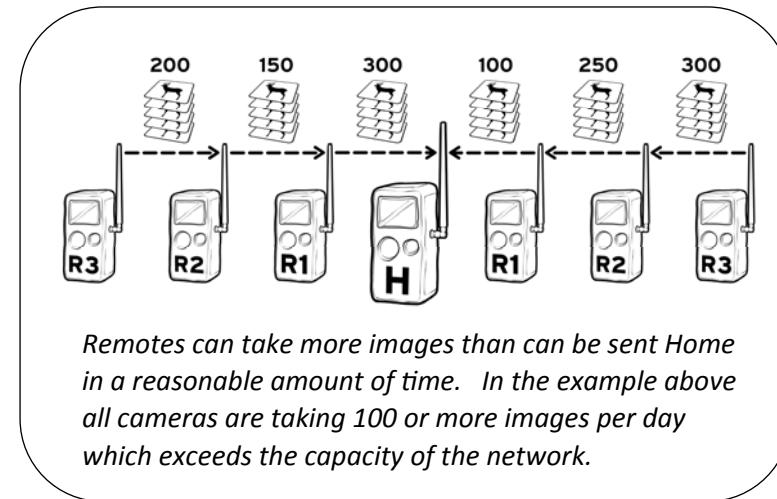
Background. The CuddeLink network, like all wireless networks, has limits to how much data can be transmitted in a specific amount of time. Think of the CuddeLink network as highway where only so much traffic can pass in a given amount of time and the more traffic on the highway the slower it moves and the longer it takes to reach a destination. Your cameras can send all the images they record, but this can create a traffic jam of images that will require more time to transfer HOME.

The daily network limit is about 24MB (about 1000 images). If you deploy 5 cameras this averages to 200 images per camera per day. For 10 cameras the average is 100 images per day per camera. Actual throughput will vary with network setup and image size.

When a camera records an image the full size image is placed on the SD card, and a compressed image is placed into a transmission outbox where the image waits its turn to transmit home. Cameras can queue up 100s or even 1000s of images that will eventually be transmitted home.

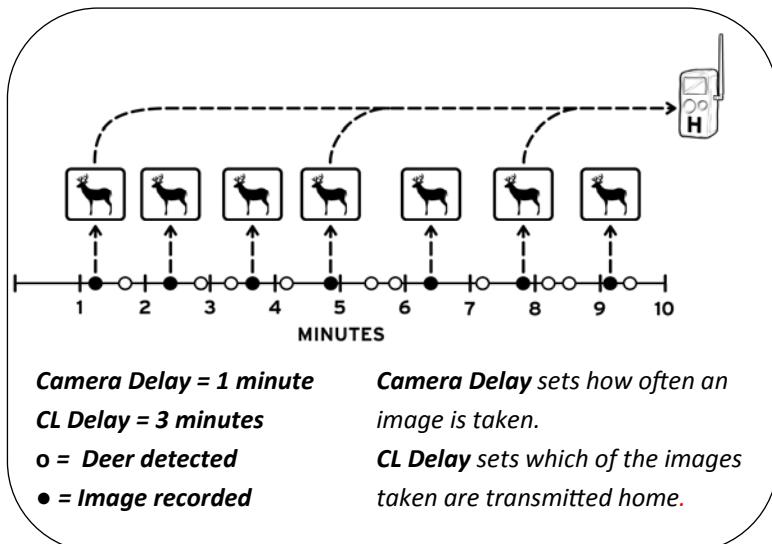
However, sending all images is not necessarily best. The network of cameras may record more images than can be transmitted in a reasonable amount of time, resulting in hours or even days for an image to get transmitted home. You will want to control how much image traffic you put on your CuddeLink network. CuddeLink has 2 settings that control the number of images a remote camera send home: CL DELAY & CL COUNT.

Note – all images the camera records are saved on the remote camera's SD card. This discussion only applies to images transmitted to the HOME camera.



Network Control - CL DELAY

CL DELAY is somewhat like Camera Delay except it controls how often images are transmitted. Let's use a diagram to demonstrate how this feature works:



Recommendations:

Trails – CL Delay of 5 seconds. Most likely a trail will not have much activity in a day so you may want to send every image home.

Fields and Plots – CL Delay of 30 seconds or more. In fields the camera may record dozens to hundreds of images in a day. You will want to use a longer CL Delay to limit the number of images the camera transmits.

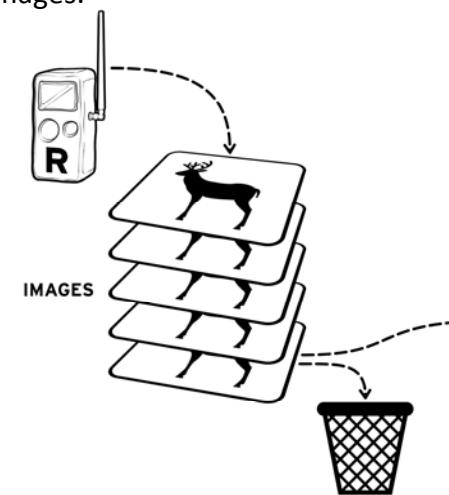
Feed Site – CL Delay of 1 or even 5 minutes or more. Feed sites are where a camera can record 100s of images in a day. We recommend you use a longer CL Delay to

compensate for all the images recorded.

Experiment. We recommend you monitor the number of images in the camera's queue and how quickly the images are getting home. Then adjust CL DELAY as required. Use the CL DELAY wisely to get the images you need from each camera without overloading your network.

Network Control - CL COUNT (Remote only)

CL COUNT allows you to set a maximum number of images that the camera can place in its transmit *outbox*. Think of this as a safety net to prevent overloading the network and assures you get the most recent images in a timely manner. Available settings are ALL, 25, 50, 100, 250. Once this limit is reached the oldest images are removed from the outbox to make room for newer images.



Remote cameras place images in an **outbox** to wait to be transmitted home. If the outbox is full the oldest image is deleted to make room for the newest. The size of the outbox is set by CL COUNT.

For example: Say a nuisance animal stops in front of your camera and the camera records 200 images of the nuisance animal. Then the animal leaves and the camera begins capturing deer as they walk past the camera. The camera will first send all the images of the nuisance animal and the images of the deer will have to wait. Depending upon the other cameras on the network, this could require many hours before the newer images are sent home. However, if you set CL COUNT to 50 or 100, you are assured that your camera's image outbox will not get overloaded with excessive images.

Recommendation – we recommend using the formula 1000 divided by the number of cameras. For example, if you have 10 cameras deployed, then $1000/10 = 100$. Set CL COUNT to 100 on all cameras. An advantage of this feature is that you can reduce the CL Delay to as low as 5 seconds and not be concerned that a camera will overload the network because CL Count will control the number of images queued for transmission and assure the most recent images are prioritized.

Don't get greedy trying to send all REMOTE images to the HOME. Doing so can overload the network and limit how fast images get Home..

Troubleshooting

The most common issues are:

- Cameras not connecting to Home or other Remotes
- Images not getting home
- Cameras not displayed on CL INFO or status report

All of these problems are the result of a camera not connecting to the network or having intermittent connection problems. To solve these issues:

1. Verify batteries in ALL cameras are good.
2. Verify the CL LEVEL on all cameras.
3. Make sure all cameras have an SD card installed.

There are additional troubleshooting tips in the online manual.

Learn More

You can learn more about CuddeLink online. The CuddeLink website contains additional documents and videos to help you deploy and troubleshoot CuddeLink cameras.

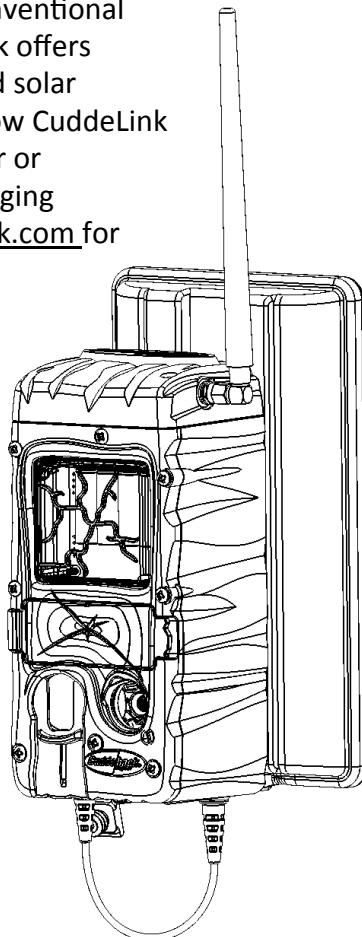
- How to configure remote and home cameras
- How to deploy and build a CuddeLink network of cameras
- Moving a remote camera without breaking the network
- Checking the Home
- Using online maps to help place cameras

Need Help

Visit CuddeLink.com for instructions on how to send us an email. Your questions will be answered by the engineers and technicians who designed CuddeLink.

Getting Cameras to Operate Longer

CuddeLink cameras consume more battery power than a conventional trail cameras. Cuddeback offers various battery packs and solar powered batteries to allow CuddeLink camera to operate longer or indefinitely without changing batteries. Visit CuddeLink.com for details.



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www.cuddeback.com

Non Typical, Inc. PO Box 10447 Green Bay, WI 54307
(920) 347-3810

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