CuddeLink Reference Manual
L-Series Cameras

Manual Number 24.3

If you are using a CuddeLink with cell capabilities we recommend you also refer to CuddeLink Cell Reference Manual for instructions on setting up the cellular features.

VIDEO LEARNING

For online video training scan QR code with your cell phone, or visit our website at *Cuddeback.com*

PHOTO CONTEST

Win a Cuddeback Photo Contest
Enter Cuddeback's Photo-of-the-Month contest. Every month we give away Cuddeback cameras. Submit your favorite Cuddeback photo at *Cuddeback.com/contest* and enter as often as you like. Every month we pick interesting photos and our customers vote online to select the winner.

FREE EXTENDED WARRANTY

You can extend camera warranty to 2 years by registering your camera online within 14 days of inserting batteries in the camera. Visit *www.Cuddeback.com* and click **REGISTER** at the top of the page.

You must register your camera to extend your warranty. We will only honor requests for extended warranty for cameras that have been registered.

FIRMWARE UPDATE

Firmware updates improve your camera with enhanced performance and new features.

Visit our website once or twice a year to check for firmware updates. Updating your Cuddeback camera firmware is a 2 step process: 1) download firmware from the Cuddeback website, and 2) loading the firmware onto your camera.

Download firmware update

a. Visit our website *Cuddeback.com/update* and check if new firmware is available and follow onscreen instructions.

Loading firmware onto your Cuddeback camera

a. Copy the firmware file to your SD card.

b. Insert the SD card into your Cuddeback camera.

c. Press MODE until COMMANDS is displayed.

d. Press MORE until DEVICE MENU is displayed. Then press UP.

e. Press MORE until LOAD F/W is displayed. Then press UP.

f. CONFIRM will be displayed. Press UP to confirm.

g. **DO NOT REMOVE THE SD CARD** until the time is displayed.

h. The LCD display will display BUSY. When finished the time will be displayed and you can remove the SD card.

i. You can use the same SD card to update all your Cuddeback cameras.

STEP 1 - BATTERIES

Remove batteries when the camera is not going to be used for an extended period of time. Failure to follow these guidelines may result in battery leakage which will damage your camera.

- Never mix old and new batteries.

- Never mix different types of batteries.

- Never mix lithium and alkaline batteries.

- Replace all batteries at the same time.

- Always remove batteries when the camera is not going to be used for a period of time.

- Dispose of batteries properly as recommended by the battery manufacturer.

- Never expose skin or eyes to battery acid. Refer to battery manufacturer's precautions.

- This camera can only use alkaline D size batteries.

BATTERY TIPS

Not all batteries are the same. We have tested many batteries in cameras and we have these recommendations.

- Use brand name alkaline batteries. In our testing they last longer, especially in cold temperatures.

- We recommend Rayovac, Duracell, Energizer brand batteries.

- Do not buy more batteries than you will use within 6 months. Batteries do degrade in storage.

- We recommend buying a battery tester. They cost about $10 and will prevent you from using weak batteries or throwing away good batteries.

- This camera requires 4 D size batteries, which have the power capacity of 32 AA size batteries. This results in lower overall battery cost and longer run times.

INSTALL BATTERIES

Install batteries by unlatching the 2 latches and open the battery door. Notice the battery orientation printed in the battery tray. Insert 4 D batteries as shown. Close and latch the door.

Make sure to observe correct battery polarity. Batteries can explode, leak fluids, or ignite if inserted incorrectly. You are responsible for inserting batteries correctly.
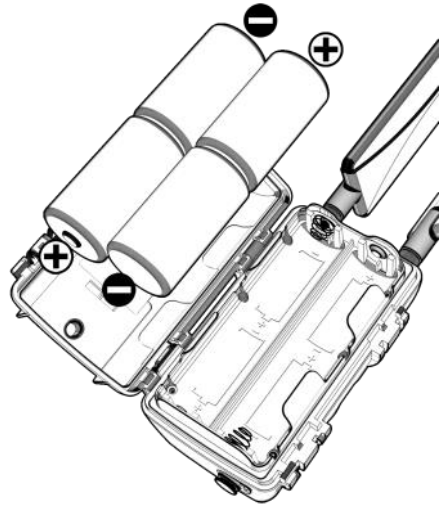
GETTING LONGER BATTERY LIFE

You can extend runtime with one of Cuddeback's solar or battery power banks. Visit your dealer or *Cuddeback.com* for details.

Attaching Power Accessory

1. Remove rubber plug from the power connector on bottom of camera.

2. Store plug inside camera battery compartment as shown in diagram.

3. Always insert rubber plug into power connector when not using a power accessory.

4. Refer to the manual included with the power accessory for complete instructions.

5. See Appendix 1 for power options.

PLUG STORAGE

POWER-IN CONNECTOR
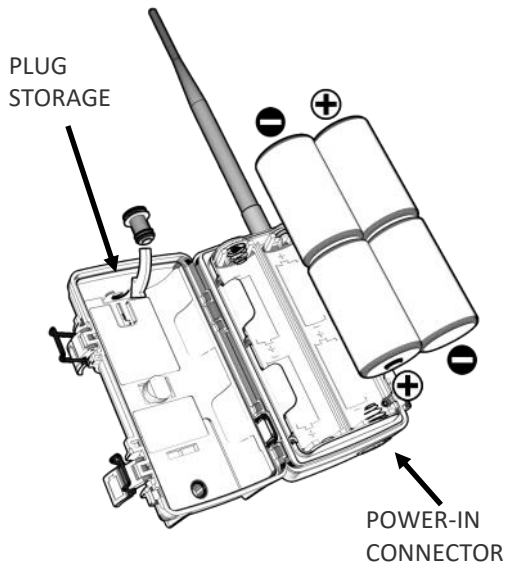
Compatible with SD & SDXC cards sizes 2GB to 256GB. Micro SD cards will function with the proper adapter. We recommend using 2 GB, 4 GB, 8 GB or 16 GB SD cards if you can find them.

- The SD Card is secured behind a sliding door to keep moisture out when checking the camera. Slide this door up to access the SD slot.

- Insert SD card label side up. Do not force card. Verify proper orientation if it doesn't go in easily.

- To remove the SD card press the card slightly and a spring mechanism will eject the card.

WARNING – Never insert a wet or damp SD card into your camera or computer.

CARD SIZE. When it comes to SD Card size bigger is not better. The table below shows the approximate number of images that can be stored on various size SD cards. As you can see, you likely do not need the biggest card size. In fact, we recommend you purchase a quality, low GB card. We recommend SanDisk and PNY brand SD cards.

CARD SIZE	APPROXIMATE NUMBER OF IMAGES
2 GB	2000 images
8 GB	8000 images
16 GB	16,000 images
32 GB	32,000 images
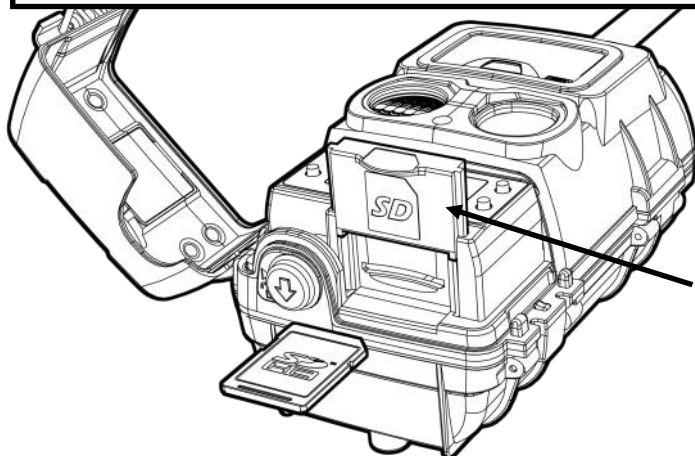
Slide door up. Insert SD card with label facing up.

CuddeLink has 2 operating modes - CuddeLink SD Mode & CuddeLink Cell Mode (see diagrams on next page).

CuddeLink SD is a network camera system that allows up to 23 cameras to send images to one Home camera, so instead of checking all the cameras, you only need to check one.

CuddeLink CELL is a network camera system that allows up to 23 cameras to send images to one Home camera, which then uses cellular LTE to deliver those images to you.

There are 3 types of CuddeLink cameras:

CUDDELINK HOME is a trail camera that includes CuddeLink wireless technology and performs 2 functions. *(Be aware that CuddeLink Home is not a separate product, it is a CuddeLink camera configured as Home).*

1. Takes images like a typical trail camera.
2. Collects images from CuddeLink Remote cameras.

CUDDELINK REMOTE CAMERAS are trail cameras that includes CuddeLink wireless technology. Multiple CuddeLink Remote cameras automatically form a mesh wireless network to send images to the CuddeLink Cell Home. *(Be aware that CuddeLink Remote is not a separate product, it is a CuddeLink camera configured as Remote).*

CUDDELINK CELL HOME is a trail camera that features 2 wireless systems (CuddeLink and Cell) and performs 3 functions:

1. Takes images like a typical trail camera.
2. Collects images from CuddeLink Remote cameras.
3. Uses cell towers to deliver all the images to the user.

If you are using a CuddeLink Cell Home refer to the manual CuddeLink Cell Reference Manual included with the CuddeLink Cell Home.
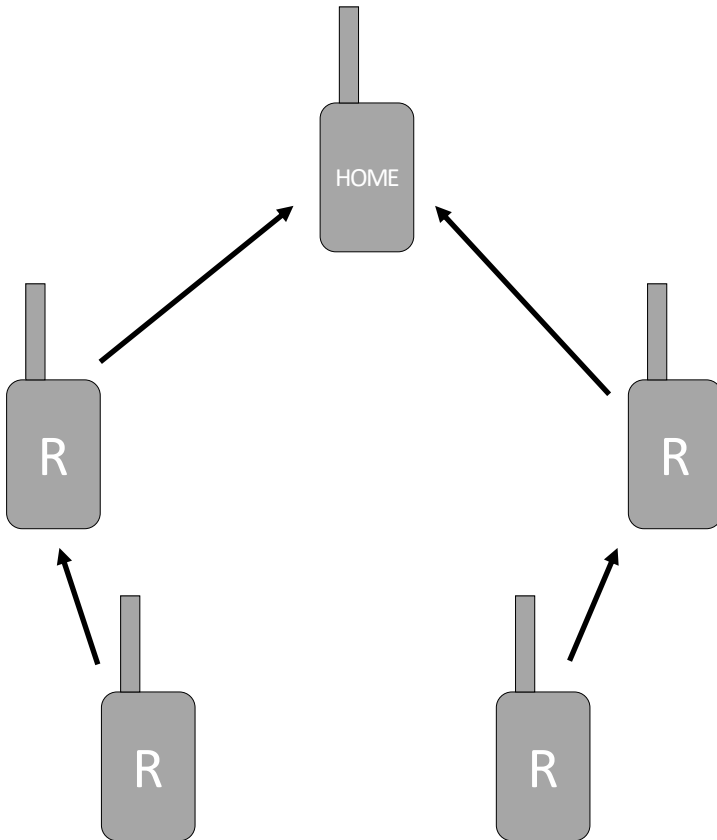
In **CuddeLink SD Mode** the CuddeLink Home Camera collects images from up to 23 CuddeLink Remote Cameras (R). You view the images by retrieving the SD card from the Home camera.

All CuddeLink cameras can be configured as a HOME or REMOTE.

This manual explains how to setup and deploy CuddeLink Home & CuddeLink Remote cameras.
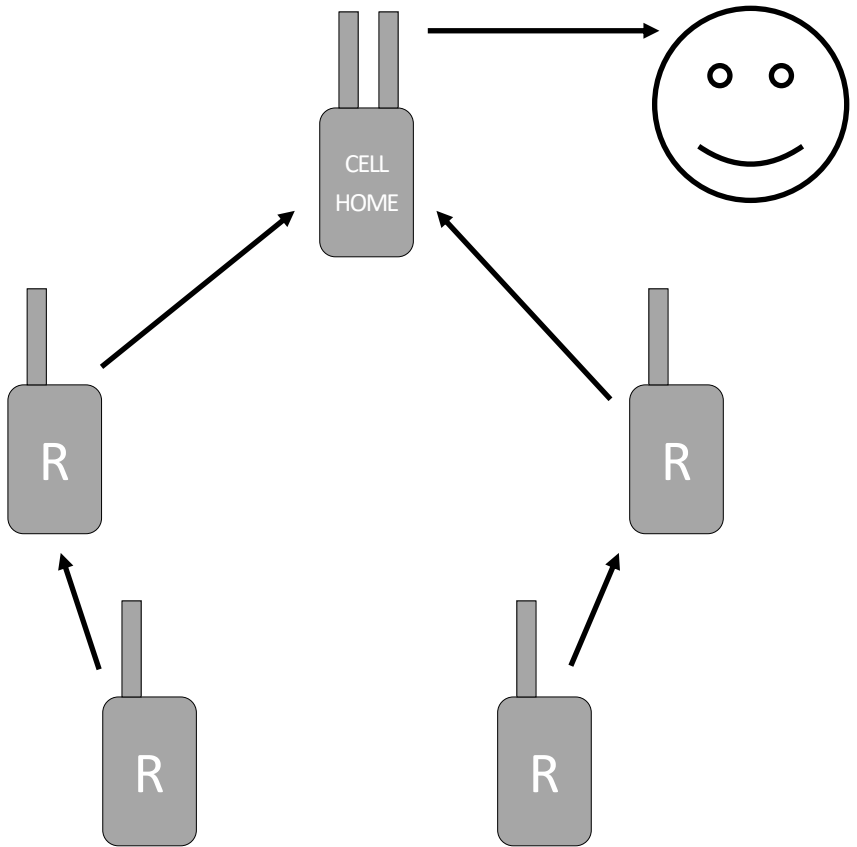
In **CuddeLink Cell Mode** the CuddeLink Cell Home Camera collects images from up to 23 CuddeLink Remote Cameras (R) and delivers them to you via cellular LTE. You can view the images on your smartphone or web browser.

CuddeLink cameras must be configured as REMOTE and a separately purchased CuddeLink Cell Camera is required for the CELL HOME.

This manual explains how to setup and deploy CuddeLink Remote cameras. For instructions on how to use the CuddeLink Cell Home refer to the manual included with the CuddeLink Cell camera.

CuddeLink Home - One and only one camera is the CuddeLink Home. Pick one of your cameras and configure it as a CuddeLink Home (page 11). This is the camera that collects images from the Remote camera. It is best to deploy this camera either where it is easy to access, such as an entry point to your property, or centrally located so it is close to as many Remote cameras as possible.

If you are using CuddeLink Cell then the CuddeLink Cell Home Camera is used as Home. This is a product that must be purchased separately.

CuddeLink Remotes - You can have up to 23 Remote cameras connected to one CuddeLink Home. Configure the cameras as CuddeLink Remote (page 12).

LEARNING TO USE CUDDELINK
The power of CuddeLink does require some learning, which can be broken into these steps:

1. Review camera setup overview on pages 14 & 15.

2. Learn to use the camera user interface - refer to pages 16 thru 30.

3. Learn to configure the LINK parameters on CuddeLink Home & Remote cameras - refer to pages 21 thru 23, LINK MENU section.

4. We also recommend you review Appendix 2 regarding CuddeLink Details, page 36.

This is a summary of the steps required to setup and deploy a CuddeLink network. For complete details refer to the remainder of this manual.

Note - pages 15, 16, & 17 explains how to use the user interface to configure the setting mentioned here.

CONFIGURE CUDDELINK HOME CAMERA

Configure CUDDELINK Settings

1. Set DATE & TIME (page 18).

2. Set LINK MODE to HOME (page 21).

3. Set LINK ID to 001 (page 22).

4. Set LINK CHANNEL to one of the numbers available (pick any number) (page 21).

5. Do not change any of the other LINK settings.

6. Set the camera delay as desired. All other settings can remain in their default settings (page 27).

7. OPTIONAL STEP - use the CAMERA ID setting to give this camera a unique name. For the HOME camera we recommend you use a name that defines the property or general location, such as WEST CAMERAS (page 25).

Deploy HOME camera

1. Go to the location you want to deploy the HOME camera.

2. Mount the camera to tree, then ARM the camera (page 13 & 30).

Configure REMOTE camera as explained on next page….

CONFIGURE CUDDELINK REMOTE CAMERAS

It's best to configure the REMOTE while next to a connected camera. In this case, stay next to the HOME camera while performing these steps.

1. Set LINK MODE to REMOTE (page 21).

2. Set LINK ID to 002 (we recommend numbering each camera consecutively starting with 1 for HOME, 2 for 1st REMOTE, 3 for 2nd REMOTE, etc.) (page 22).

3. Set LINK CHANNEL to the same channel you set on HOME (page 21).

4. Enable the LINK LEVEL menu and wait for a signal level to appear. - - - means no signal, and a number indicates a signal. If you do not get a signal within 3 or 4 minutes or signal is less than 15 we recommend you move closer to the HOME camera or closest Remote camera (page 22).

5. Move to the location you want to deploy the REMOTE camera making sure the LINK LEVEL remains.

6. Set the camera delay as desired. All other settings can remain in their default settings (page 27).

7. OPTIONAL STEP - use the CAMERA ID setting to give this camera a unique name. For the REMOTE cameras we recommend you use a name that defines the camera's specific location, such as WEST FIELD (page 25).

Deploy REMOTE camera

1. Mount the camera to tree, then ARM the camera (page 13 & 30).

2. Repeat Step 1 thru 8 for all your REMOTE cameras, making sure each camera has a unique LINK ID number (and CAMERA ID if desired).

NEXT STEPS

We recommend reading the rest of this manual for detailed instructions.

Install the Cuddeback smartphone APP on your phone and touch the **(?)** when you need assistance. To install the Cuddeback app visit your smartphone's store and search for Cuddeback and install the app.

MOUNTING THE CAMERA

Mount the camera at about the height of the center of the target animal, about waist high for deer, and chest high for elk. We recommend setting the camera about 10 to 30 feet from where most animals will be.
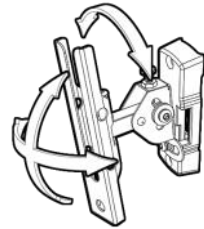
Genius Mount - 1 Genius mount is included with camera. It can be screwed or strapped to tree (screws not included).
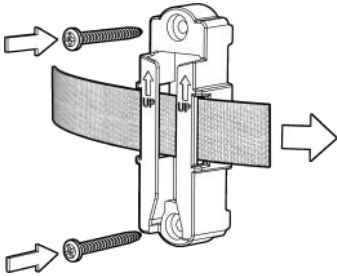
MOUNTING OPTIONS AVAILABLE FOR PURCHASE

PTL Mount (Pan/Tilt/Lock)
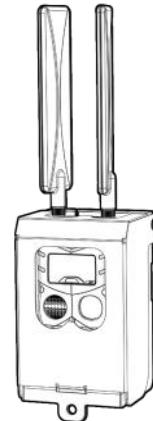The PTL mount allows camera to be panned left/right, tilted up/down and angle corrected to level camera.

Post Mount
Mount your camera anywhere, no tree required. Forked foot provides stability in soft soils. Height adjustable from 28 to 40 inches.

CuddeSafe
Provides protection from bears and vandals. All metal construction with padlock shackle to keep your camera safe.
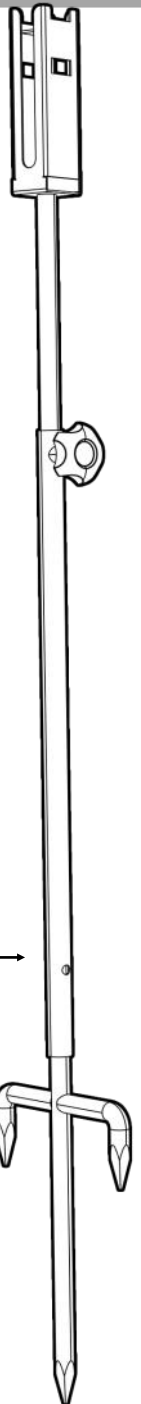
This section explains how to use the user interface and setup the camera.

Flash LEDs

Red Test LED

Camera Sensor

Motion Sensor

User Interface

QR Code

SD Door - slide up to access SD card

(Typical Cuddeback camera shown. Your model may look different.)

The Advanced User Interface has 2 sections: LCD Display & Keys.

4 Keys: MODE, MORE, UP, DOWN

Press the **MODE** key to select 1 of these 6 operating modes:
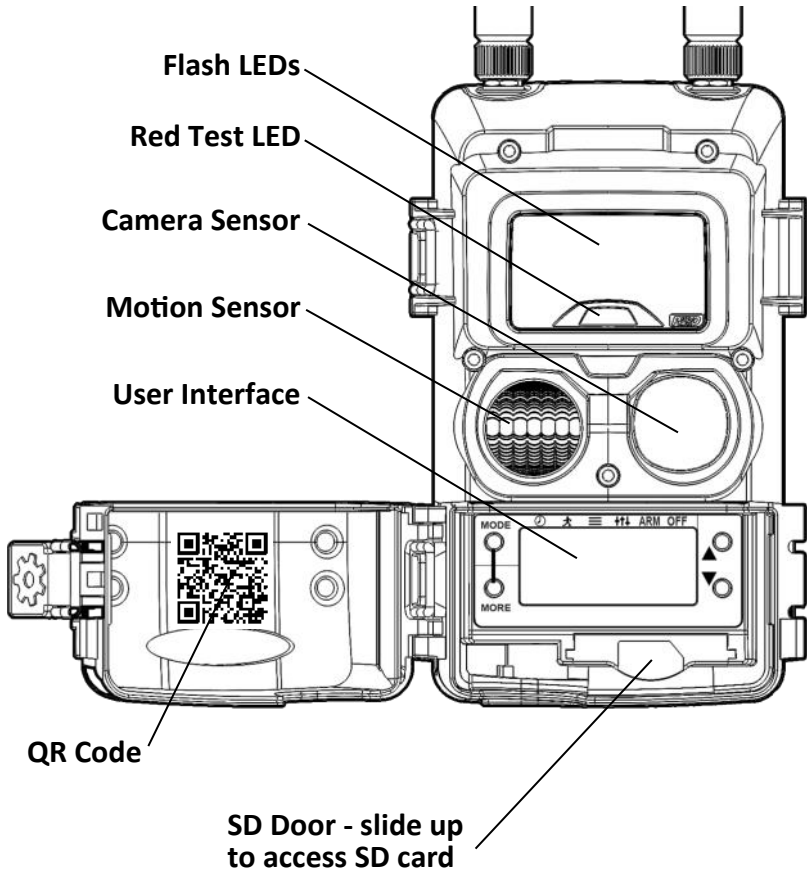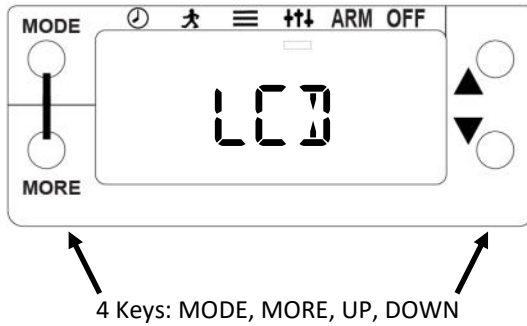
- **CLOCK** — display and set date and time

- **TEST** — enable walk test & diagnostic features

- **COMMANDS** — access to various commands

- **SETTINGS** — program camera operating parameters

- **ARM** — enable the camera to detect activity and take pictures

- **OFF** — turn the camera off

Press **MORE** to access additional menus for each mode.

Press **UP** and **DOWN** to enter a menu or change a setting.

LEARN - Familiarize yourself with navigating these menus before reading the rest of this manual. The best way to learn these menus is to try it, you can't break anything by navigating the menus. If you think you may have messed up the camera, use the RESET command to restore factory settings (see page 32).

Use the **MODE** key to select one of 6 MODES which will be displayed on the LCD — **CLOCK, TEST, COMMANDS, SETTINGS, ARM, OFF.**

When a MODE is selected use the **MORE** key to select menus for each MODE.

Use **UP & DOWN** keys to change displayed setting.

CLOCK — display date & time. Press MORE to toggle view between date and time. Press UP/DOWN to set. Press MORE to select month/date or hours/minutes.

TEST

MOTION TEST — enables walk test to test motion sensor range

RESET DEVICE — resets camera to default settings

BAT STATUS — displays battery level. Press UP for Battery Run Days & Battery Images.

BAT TEST— performs a load test on the battery

FILTER TEST—activates the filter mover

FLASH TEST— activates the illumination LEDs

SD CARD TEST — tests the SD card

IMAGE TEST — takes an image and saves to SD card

COMMANDS

BAT STATUS — displays battery status, press UP for additional info.

CLEAR SD — clears the SD card

LINK MENU ⤷

LINK MODE — sets CuddeLink mode to Off, Repeater, Remote, Home

LINK ID — assigns a 3 digit number to this camera

LINK INFO - displays information for all the CuddeLink Remote cameras

LINK CHANNEL — configures the CuddeLink radio channel

LINK COUNT — sets size of CuddeLink image queue

LINK LEVEL — displays the CuddeLink radio signal strength

LINK CLEAR — clears all images in the CuddeLink image queue

IMAGE MENU ⤷

FLASH MODE — sets the camera flash mode

EXPOSURE—select WIDE or CENTER

IMAGE SIZE — sets the size of images saved to SD card

LAPSE SIZE — sets the size of time lapse images saved to SD card

OTHER MENU ⤵

    CAMERA ID — program a camera name into the camera

    DST MODE — enables/disables Daylight Savings Time mode

    TIME SYNC — enables/disables syncing date & time to cell towers (THIS SETTING IS ON CELL CAMERAS ONLY)

    MOTION SENSE — sets sensitivity of the motion sensor

DEVICE MENU ⤵

    MODEL NUMBER — displays camera model number

    F/W VERSION — displays camera firmware number

    DEVICE STATS — press UP to see historical stats & warranty date

    LOAD F/W — loads new firmware from SD card

    REBOOT — restart camera

SETTINGS

SETTINGS MODE — selects settings mode (EASY, ADVANCED, SECURITY)

EASY MODE

    DELAY — sets camera delay for easy mode

ADVANCED MODE

    DAY IMAGES — turns day images on or off

    DAY DELAY — sets day time camera delay

    DAY LAPSE — sets day time time-lapse mode

    NIGHT IMAGES — turns night images on or off

    NIGHT DELAY — sets night time camera delay

    NIGHT LAPSE — sets night time time-lapse mode

    PT MORNING — enables morning prime time

    PT EVENING — enables evening prime time

    PT INTERVAL — sets prime time interval

SECURITY MODE

    IMAGES — in security mode you select 1 to 5 images per event

ARMING — arms camera for taking pictures

OFF MODE — press UP to turn camera off

With the CuddeLink Cell Home you do not have to set the date & time as it is set from the cellular signal. If you are using a CuddeLink Cell Home refer to its manual for information on the date and time.

Press MODE until CLOCK is displayed

DATE and TIME

You must set the date & time on the CuddeLink Home.

(Note - you do not need to set the date & time on the CuddeLink Cell Home as it receives date & time from the cell towers).

You do not need to set the date & time on CuddeLink Remote cameras as they will receive the date & time from the CuddeLink Home.

Cameras automatically adjust the time for Daylight Savings Time (DST). You can disable this in the TIME MODE setting (COMMANDS - OTHER MENU).

Manually Set the Time

Note - time is displayed in 12 hour AM/PM format.

With the time displayed press the UP or DOWN key. The hour will flash indicating you can change the hour. Press UP/DOWN as needed to set the hour. Press MORE to switch to minutes. The minutes will begin to flash. Press UP/DOWN to set as desired. When the correct time is set press MORE to exit the time setting.

Manually Set the Date

Note - date is displayed in Month-Day-Year format.

With the date displayed press the UP or DOWN key. The month will flash indicating you can change the month. Press UP/DOWN as needed to set the month. Press MORE to switch to day. The day will begin to flash. Press UP/DOWN to set as desired. Press MORE to switch to year. The year will begin to flash. Press UP/DOWN to set as desired. When the correct date is set press MORE or MODE to exit the date setting.

Press MODE until TEST is displayed

Momentarily MOTION TEST ON will be displayed.

MOTION TEST

Cuddeback detects animals with an advanced Passive Infrared (PIR) sensor, commonly referred to as a Motion Sensor or Motion-Heat Sensor. You can test the detecting range with the **MOTION TEST** feature. Walk back and forth in front of the camera, a red LED will illuminate when the camera detects you.
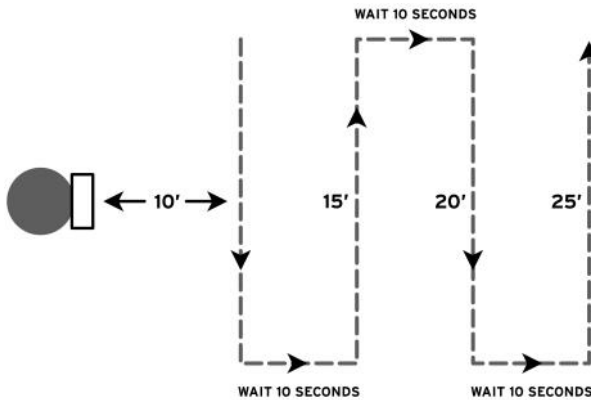
You can adjust the sensitivity of the sensor with the **MOTION SENSE** setting (COMMANDS - OTHER MENU). Keep in mind higher settings can lead to false triggers, which generate blank images.

We recommend setting the camera about 10 to 30 feet from where most animals will be. Mount camera at the correct height for the target animal, about waist high for deer, about chest high for elk. Aim camera level to ground.

ADDITIONAL TEST ITEMS

Pressing MORE will display additional test items. These are explained in the HELP section on page 32.

Press MODE until COMMANDS is displayed

After a moment BAT STATUS will be displayed. Consecutively press MORE to display all the commands listed below. When a COMMAND is displayed press UP/DOWN to activate as required.

BAT STATUS

Battery level is displayed as OK, LOW, or DEAD. Press UP/DOWN to display additional battery data:

BAT RUN DAYS is the number of days the camera has been operating on this set of batteries.

BAT IMAGES is a count of how many *battery images* were taken on this set of batteries. The value is calculated based upon how much battery power is used to record an image.

Battery Images takes into account that a night image requires more power than a day image. For this reason Battery Image will be higher than the number of images taken. This feature can be used to compare various brands and types of batteries.

CLEAR SD

CLEAR SD will erase the SD card. All files and images will be deleted. Press UP/DOWN to enable the CLEAR command. You will be asked to CONFIRM. Press UP again to confirm, or press MORE to cancel the clear operation. The clear command formats the SD card. You can use CLEAR SD to attempt to repair a non-working SD card.

LINK MENU ↲

These settings configure how images are sent over the CuddeLink network. This menu will be different depending if a camera is set to CuddeLink HOME or CuddeLink Remote. Press UP to enter this menu, then press MORE to continue. Refer to Appendix 2 for more information on setting up a CuddeLink network.

LINK MODE

LINK MODE sets the CuddeLink mode to one of these choices:

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 on a network should be set to HOME.

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

REPEATER – Set to Repeater when you need a repeater to transmit images, but you do not want the camera to record images.

LINK ID is used to assign an identification number to each camera on the network. We recommend you give each camera a unique number, starting with 1 for HOME and 2, 3, 4, and so on for REMOTES.

LINK INFO *(Home Only)*

LINK INFO is only on the CuddeLink HOME camera and displays stats for each Remote camera. First it will display the number of nodes (cameras) connected to this HOME. Press UP or DOWN to display info on all cameras connected to HOME.

Note - depending upon how many cameras you deployed it may take several hours for the LINK INFO to update.

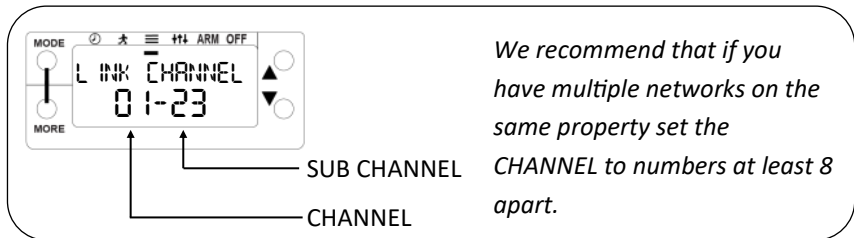The top line will display the camera type (Home, Remote, Repeater)

and its LINK LOC number. The bottom line will display the battery status.   Here are examples:

```
0 1/ HOME 000
    BAT OK
```

```
02/ RMT 001
    EXT OK
```

```
03/ RMT 002
    BAT LOW
```
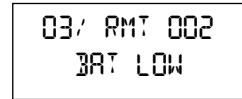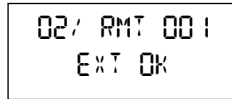
LINK CHANNEL

LINK 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 channels from 01-01 thru 16-31. The first number is the channel, the 2nd number is the subchannel. You can choose any number combination 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 LINK LEVEL on a Remote camera to listen for radio traffic. If a numerical signal is displayed you must select a different channel. With 496 channels

MODE ⏲ ☀ ☰ ††† ARM OFF

L INK CHANNEL
    0 1-23

SUB CHANNEL

CHANNEL

We recommend that if you have multiple networks on the same property set the CHANNEL to numbers at least 8 apart.

available you should be able to find a clear channel.

More than 24 cameras. A single CuddeLink network is limited to 24 cameras. If you require more than 24 cameras you can deploy additional networks. Each network must be assigned a unique LINK CHANNEL and we recommend the channel numbers be 8 or more apart (for example, 3 and 11). *Refer to diagram below.*

LINK COUNT *(Remotes Only)*

LINK 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, 500. Once this limit is reached the oldest images are removed from the outbox to make room for newer images.

Note - see Appendix 2 for detailed information on this setting.

LINK LEVEL *(Remotes Only)*

LINK 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 LINK 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 LINK LEVEL while next to a deployed camera and then move away from that camera with the LINK LEVEL displayed. This allows you to monitor the level as you move further from the deployed camera.
- LINK LEVEL will vary and you may see the level fluctuate as you are observing 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 LINK CHAN is set to the same number on all cameras.

LINK CLEAR *(Remotes Only)*

Clears all the images in the CuddeLink transmit queue. You would use this command to clear out excessive images to restore normal operation.

IMAGE MENU ⤵

FLASH MODE

Configures camera's night illumination mode.

OPTIMAL — use in forest and where animals are usually within 25 feet. This mode creates the best image quality.

BRIGHT — use in more open spaces where game is further from camera. This mode has longer illumination range but less image clarity.

EXPOSURE

Configures camera's exposure system to compensate for changing the Fresnel lens.

WIDE — use this setting with standard PIR Fresnel lens included with camera.

CENTER — if you elect to use Cuddeback's centered focus PIR lens, set the EXPOSURE to CENTER. PIR lens sold separately on Cuddeback.com. The centered Fresnel lens may provide longer detection range with less detection width.

IMAGE SIZE

This sets the size of motion sensed images saved on the SD card. This does not affect the size of the image sent via LTE. Select LARGE or XLARGE. LARGE is the native sensor size and XLARGE is an interpolated larger image. We recommend you use the LARGE size.

LAPSE SIZE

Note - this sets image size for Time Lapse & Prime Time*

This sets the size of time lapse images saved on the SD card. This does not affect the size of the image sent via LTE. Select LARGE or XLARGE. LARGE is the native sensor size and XLARGE is an interpolated larger image. We recommend you use the LARGE size.

OTHER MENU ⤵

CAMERA ID

Assigns a 20 character name to the camera. The current CAMERA ID will be displayed. Press UP to enter or change the CAMERA ID. Press MORE to advance to the next position. Press and hold MORE to back up one position. Use the = symbol for space. To erase a CAMERA ID enter space = into the first position. When you have finished entering characters enter space in all remaining positions, wait for the activity to time out, or press MODE.

This feature can be used to enter a GPS location in the format 44-24-38N 88-06-57W. Obtain the GPS coordinates from a GPS or smart phone.

DST MODE

Daylight Savings Time.

DST OFF — camera does not use Daylight Savings Time.

DST AUTO — camera automatically changes the time in spring and autumn for DST per USA schedule.

MOTION SENSE

Adjust the sensitivity of the camera's animal sensor. If you want to detect animals further or detect smaller animals increase the setting. If you are getting too many blank images or want shorter range lower the setting. Settings are **LOW 2, LOW 1, OPTIMAL, HIGH 1 thru 4**.

DEVICE MENU ↲

MODEL NUMBER
Displays camera's model number.

F/W VERSION
Displays camera's firmware version. Press UP/DOWN to see additional version information.

DEVICE STATS
Displays camera's historical statistics. Press UP/DOWN to view:

Activation Date is the day the warranty begins. It is set automatically a short time after batteries are installed.

LD is Lifetime Days is how many days the camera has operated.

RD is Run Days is how many days the camera has been armed.

LI is Lifetime Images is how many images the camera has taken.

LOAD F/W
Use to update the camera's firmware from an SD card. Refer to *Firmware* section in the beginning of this manual for more details.

REBOOT
This command restarts the camera. You normally will not use this command. It is meant to be used with our support staff to diagnose issues.

Press MODE until SETTINGS is displayed

Use UP or DOWN to select 1 of 3 operating modes.

EASY — Easy Mode has only 1 setting and is easy to use.

ADVANCED — Advanced Mode allows programming separate settings for day & night, and time lapse mode.

SECURITY — Security Mode optimizes the camera for surveillance operation.

After selecting the setting mode press **MORE** to continue.

SETUP — **EASY MODE**

Easy Mode has only 1 setting which simplifies camera setup.

DELAY — This is the delay between images. Settings are 5 seconds to 1 hour and AUTO. See page 32 for an explanation of AUTO DELAY. Press UP/DOWN to select.

SETUP — **ADVANCED MODE**

ADVANCED Mode allows more versatility and allows different settings for day and night. Using Advanced mode you can set any combination of images and time-lapse for day and night.

Press UP/DOWN to change the displayed setting. Press MORE to continue to the next setting.

DAY SETTINGS

DAY IMAGES — select ON or OFF. Off disables day images.

DAY DELAY — select AUTO, 5 Seconds to 1 Hour.

DAY LAPSE — (OFF to 24 hours). Time lapse automatically takes pictures at the interval set.

NIGHT SETTINGS

NIGHT IMAGES — select ON or OFF. Off disables night images.

NIGHT DELAY — select AUTO, 5 Seconds to 1 Hour.

NIGHT LAPSE — (OFF to 24 hours). Time lapse automatically takes pictures at the interval set.

PRIME TIME SETTINGS

Prime Time is a specialized time lapse mode for monitoring fields for up to 3 hours each morning and evening. Unlike the day and night time lapse already explained, Prime Time limits the number of images recorded to allow them to be sent over the cell network.

PT MORNING — (OFF, 1 Hour, 2 Hours, 3 Hours). Selects the length of time the camera will record time lapse images in the morning. The recording will begin at first light and continue for the number of hours selected.

PT EVENING* — (OFF, 1 Hour, 2 Hours, 3 Hours). Selects the length of time the camera will record time lapse images in the evening. The recording will begin at approximately the selected number of hours before darkness and continue until dark.

PT INTERVAL — (5, 10, 15 minutes). Sets the delay between Prime Time images. This interval is longer than standard time lapse so that a limited number of images are taken so they can be transmitted over the cell network.

*Note - When first deployed the evening operation will begin taking images the next day as the camera requires the first day to determine what time darkness begins.

SETUP — SECURITY MODE

Security mode is a simple way to setup a camera for surveillance without having to program many settings.

1. Camera will record all activity.
2. Camera Delay is set to fast-as-possible.
3. All images are saved to the SD card. If the SD card is full the oldest images are erased to make room for new images.
4. Only 1 setting needs to be programmed under the SETTINGS mode: **IMAGES** (1, 2, 3, 4, 5) is the burst number of images to record with each motion detection.

AUTO CAMERA DELAY

Auto Camera Delay is Cuddeback's patented delay technology that lets the camera adjust the delay based upon animal activity. When Auto Camera Delay is enabled the delay functions as explained next.

1. The initial delay is 5 seconds allowing the camera to take images of every event.

2. If an animal is continually triggering the camera the delay is extended.

3. If the animal continues to trigger the camera the delay is further extended. This will happen many times until the maximum delay of 3 minutes.

4. When the activity subsides, the delay is reset to 5 seconds.

Auto Camera Delay assures your camera will capture as many images as practical, without recording excessive images of the same animal. This feature is especially useful on trails and scrapes where deer seldom stay in front of a camera for very long, but if they do, the camera could take 20 pictures per minute of the same animal. On a busy bait site this feature will generally result in a 3 minute delay after the deer has been feeding for some time, yet reverts to a 5 second delay when the activity lessens, assuring you get multiple pictures of the next animal.

ARMING THE CAMERA TO TAKE PICTURES

Press **MODE** until ARMING is displayed. This arms the camera so it will begin taking images when activity is detected. When ARM is enabled a 30 second count-down timer is displayed. When the count reaches 0 the camera will arm.

SD Card Check

If a SD card is not detected the warning CHECK SD will be displayed when the camera is armed. The camera must have a SD card installed. CHECK SD will also be displayed if the SD Card is defective or not inserted properly.

Auto Arm

If the camera is left in any state, other than OFF, the camera will automatically arm in 5 minutes. This prevents you from failing to activate the camera.

CHECKING A CAMERA / ARMED INFO

To check the status of the camera press UP when the camera is ARMED. This will enable **Armed Info** which temporarily suspends arm mode. Press UP/DOWN to display camera status as follows.

BATTERY STATUS — display battery condition

LINK LEVEL — refer to page 22 for details

SD IMAGES — number of images on SD card

SD FREE — available space on SD card

MOTION TEST — enables walk test (LED illuminates with activity)

ARM — arms the camera

TURNING THE CAMERA OFF

Two steps are required to turn the camera off. Press **MODE** until OFF is displayed. After a moment CONFIRM will be displayed. Press UP or DOWN to confirm and the camera will turn off.

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 as explained on page 30. DO NOT TURN OFF THE CAMERA!

- If you continue to press UP Armed Info for 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 LINK ID 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.
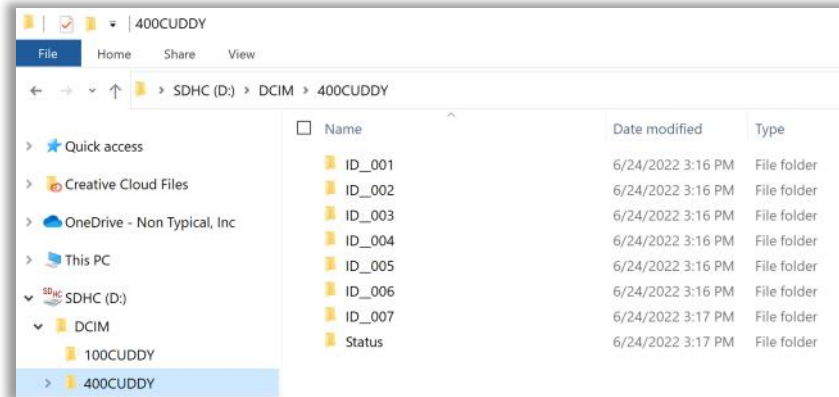
Contents of Home SD card. Images from Remote cameras are saved in the ID__### folders.

If you suspect your camera is not functioning correctly follow these steps.

Press MODE until TESTS is displayed. Press MORE to view the available test features. Press UP to run a test.

MOTION TEST — (Detector Test) If you suspect the camera is not detecting animals place the camera in WALK. Walk in front of the camera. The red LED will illuminate if it detects you.

RESET DEVICE — Press UP to reset the camera to factory defaults. It is good practice to reset a camera if you think the camera is not functioning correctly.

BAT STATUS — Displays the *voltage level* of the batteries. If LOW or DEAD is displayed you should replace the batteries. Press UP to display Battery Images (BI) and Battery Days (BD).

BAT TEST — Tests battery *current capacity* as a %.. Press UP to run the test. This test is more accurate than the Battery Level voltage test. If the reading is below 50% you should replace the batteries. This test is not on some camera models.

FILTER TEST — (IR cameras only) Activates the camera's filter mover to verify it moves in and out of position.

FLASH TEST — Activates the camera's illumination LEDs. Observe the LEDs to check if they illuminated. For Black Flash® cameras you will need to use a cell phone camera to see the LEDs.

SD CARD TEST — Verifies the camera can read your SD card. If this test fails replace the SD card.

IMAGE TEST — Records an image and saves it to the SD card.

No Images. Verify your camera settings and that IMAGES is not set to OFF. Check that the camera is set to about body height of the target animal & is properly aimed. For best performance we recommend positioning the camera within 10 to 30 feet from where animals are expected, and mounted about waist high (30 inches above ground level).

Not Turning On. If the camera is not functioning replace the batteries with brand-new-from-the-store batteries. Over 50% of phone calls we get are

resolved by installing new batteries.

Not Detecting. If your camera is not detecting animals use the WALK TEST to verify the motion sensor is working.

Poor Illumination. If the night images are dark or poor quality you can move the camera closer to the animals, and verify BATTERY TEST is 50% or higher. See previous page for instructions on battery testing.

Cameras not connecting to Home
These are the most common causes of cameras not connecting, or not staying connected.

1. Verify batteries in all cameras are good. In cold temperatures batteries can "brown out" where they work one day, but not the next. Always use high quality batteries.

2. Verify the LINK LEVEL on ALL cameras is 10 or higher, with 20 or higher being preferred. You can see the LINK LEVEL of all cameras on the CuddeLink.html status report on the Home camera's SD card. If a camera LINK LEVEL is too low you may need to move the camera or add a camera between the trouble camera and the next closest to Home.

3. Make sure all cameras are using the same version of firmware.

Images not getting home
If you feel all your Remote camera images are not getting to the Home camera.

1. Use the LINK INFO menu or the CuddeLink.html status report to verify that all cameras are connected to the Home camera.

2. Verify that the LINK COUNT is set to a reasonable setting. For example, if your network is taking many hundreds or over 1000 images per day you may be overloading the network capacity. Use LINK COUNT or CAMERA DELAY to limit how many pictures are taken.

3. It takes time for images to travel Home, especially on big networks with many "links" between Home and the furthest camera. On a busy network it can take many hours for all images to get Home. If this becomes a problem then deploying multiple networks with fewer cameras per network will improve performance.

IMAGE FOOTER ICONS

The following icons are imprinted on the footer of the image.

MOON PHASE - the moon phase at the time the image was taken.

CAM ID - if camera ID is programmed it will be imprinted on the image footer.

DATE / TIME - date and time is always imprinted on the image in 12 hour AM/PM format.

FLASH STAUS - the type of flash used to take the image. A colored icon will indicate the flash type: Black Flash (black), IR (red), strobe (white), or flash not used (sun/cloud icon).
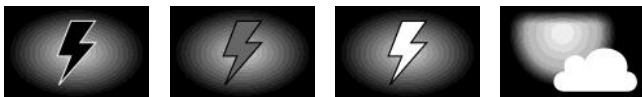
SD CARD FOLDERS & FILES

This is the organization of the files and folders on the SD card.

Motion Activated Images:
> Folder: SD:\\DCIM\100CUDDY
> File type: I__12345.jpg

Time Lapse Images:
> Folder: SD:\\DCIM\200CUDDY
> File type: L__12345.jpg

CuddeLink cameras consume more battery power than conventional trail cameras. You can extend battery life with Cuddeback's external power banks.
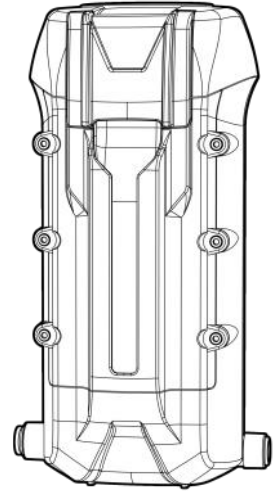
POWER BANK, Dx6
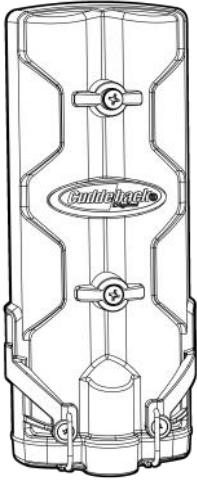
6 D batteries extend runtime up to 3 months or more.
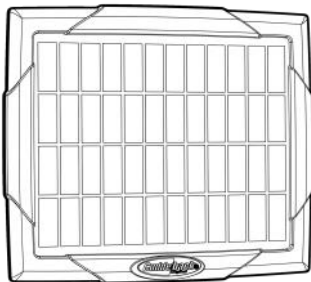
DUAL POWER BANK, Dx12

Two banks of 6 D batteries (12 total) extend runtime up to 6 months or more.
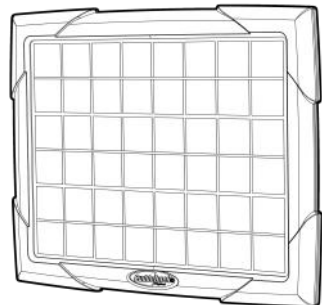
SOLAR POWER BANK
Sun Model

Solar panel with built-in low temperature batteries. Can run camera indefinitely as long as it receives sufficient sunlight.

SOLAR POWER BANK
Sun & Shade Model

Solar panel with built-in low temperature batteries. Can run camera indefinitely as long as it receives sufficient ambient light.

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 patented CuddeLink system eliminates checking multiple cameras and utilizes 1 camera as an image depository for up to 24 CuddeLink cameras.

CuddeLink is a wireless network of cameras that transmit their images to 1 camera. The image collection 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 1/4 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 2 miles.

Typical Range
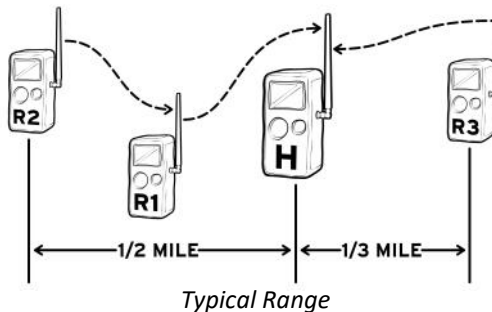
One CuddeLink equipped camera must be the HOME camera. HOME is the camera that collects images from the REMOTE cameras.

TERMS

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

LINK 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 or 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.

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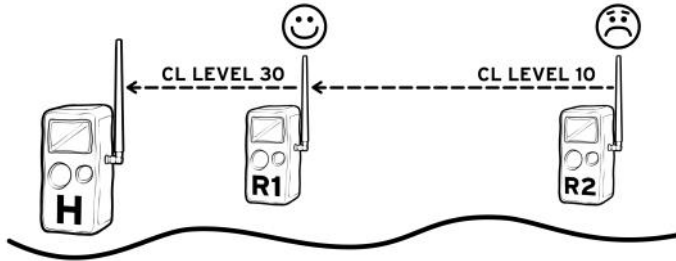
We recommend using a map based GPS or online aerial photos to help deploy cameras.   A map will allow you to check distance between cameras and observe actual arrangement of cameras.

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 1/2 mile in heavy forest and to over 2 miles in open terrain. Trees, foliage, elevation, terrain, hills, even humidity can shorten transmission range to under 1/4 mile.   You will need to experiment and use your GPS, maps, and the LINK 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 to connect these cameras.

*A hill can block the radio signal*
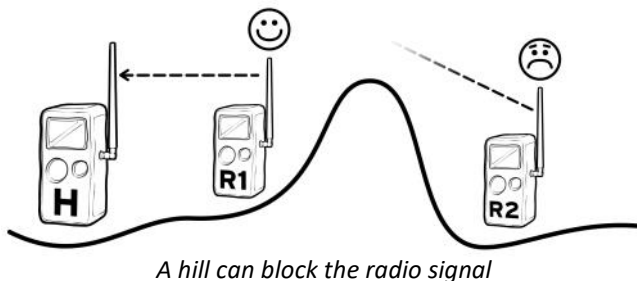
In the diagram above a hill is blocking the signal. There are many things that can prevent 2 cameras from connecting, such as distance is too far, foliage is too thick, or the elevation is changing and causing problems. In all cases the solution is to insert a camera to complete the connection. In this example, R3 is inserted between R1 and R2.

Use a camera to extend range or to
transmit images over a hill or ridge.
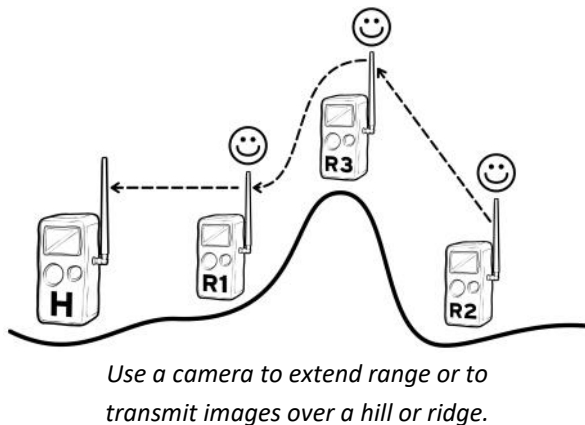
LINK MODE = REPEATER. There may be times when the connecting camera, R3 in this example, may be located where you don't want it to take pictures. In these situations set the LINK MODE to REPEATER. When the camera is configured as a REPEATER it will not take any images, but will serve to transfer Remote camera images. In our example, R3 receives images from R2 and sends those images to R1.

Moving a REMOTE camera can disrupt or break your network. Think of your network as a chain of links and removing one link may break the chain. You need to take precautions when moving cameras to assure your network remains functioning.
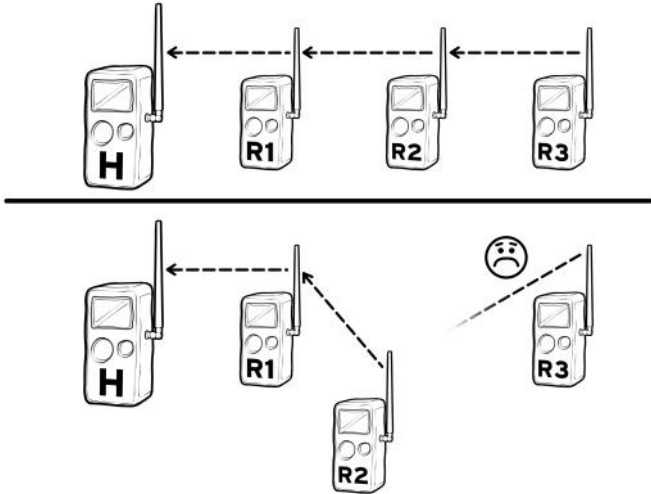
By moving remote R2 the connection to R3 was broken.

To move a camera we recommend this process:

- Disarm the camera you want to move and enable LINK LEVEL.

- Move the camera to the new location and verify LINK 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 LINK LEVEL.

- It is good practice to wait 24 hours after moving cameras then check the status report to verify all cameras are connected.

Keeping track of the physical location and images from many cameras can be confusing. CuddeLink has two features to simplify camera/image management.

LINK ID. The cameras' LINK ID number is used to identify which camera took the images. The Home camera saves the images from each camera in unique folders based upon the remote camera's LINK ID setting. The LINK ID is printed on the image to allow you to identify which camera took the image.

For example:

> **DCIM/400CUDDY/LOC__001** this is the folder where images from camera LINK LOC 001 are saved.

> **DCIM/400CUDDY/LOC__002** this is the folder where images from camera LINK LOC 002 are saved.

> And so on….

CAMERA ID. With many cameras it can be difficult to determine where an image was taken. We recommend you use CAMERA ID to define the location of the camera. The CAMERA ID is printed on the image and makes it easy to determine where an image was taken.

Each time you move the camera you should assign a new CAMERA ID that defines the new location. Some examples we have used are POND FIELD, VISION TRAIL, HILL TOP.

LINK ID vs CAMERA ID - Link ID is a number used by CuddeLink to define a camera. Camera ID is a text string that can be used to define where the camera is located.

The smartphone APP and CAMP website can search images by the LINK ID and the CAMERA ID.

If you have 8 or less cameras on the network this setting is probably not important and you can leave it in the default setting. This setting 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 LINK 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 a 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 1000 to 1500 images. If you deploy 5 cameras this averages to 200 images per camera per day. For 10 cameras the average is 100 images per camera per day. 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. The LINK COUNT setting controls the number of images a remote camera sends home. The CAMERA DELAY should also be used to limit how many images are taken.

LINK COUNT (CuddeLink Count)

LINK 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, 500. Once this limit is reached the oldest images are removed from the outbox to make room for newer images.

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 LINK COUNT to 50 or 100, you are assured that your camera's image outbox will not get overloaded with excessive images.

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.


REMOTE TRANSMIT OUTBOX
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 LINK COUNT.
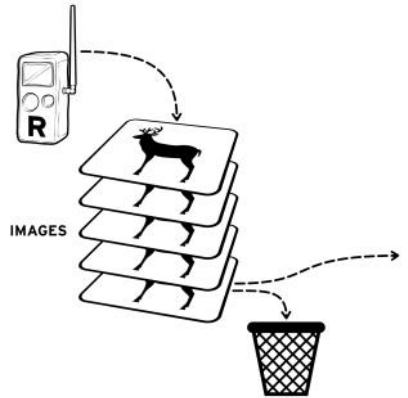
Multiple networks can be used to localize cameras.   For example, say you have a large piece of property which would require too many cameras to connect end to end. Break the property into smaller areas and deploy a network in each area. You will be required to check multiple cameras, but far less than if you had to check all the cameras.
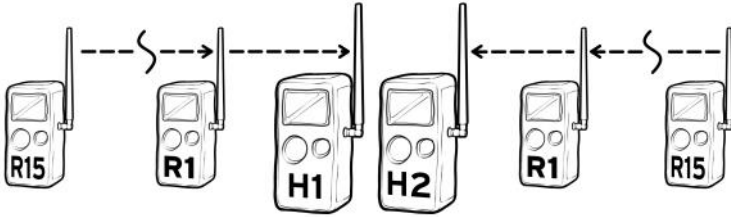
If you require more then 24 remote cameras you can deploy two networks on different channels. The Home cameras can be near each other.
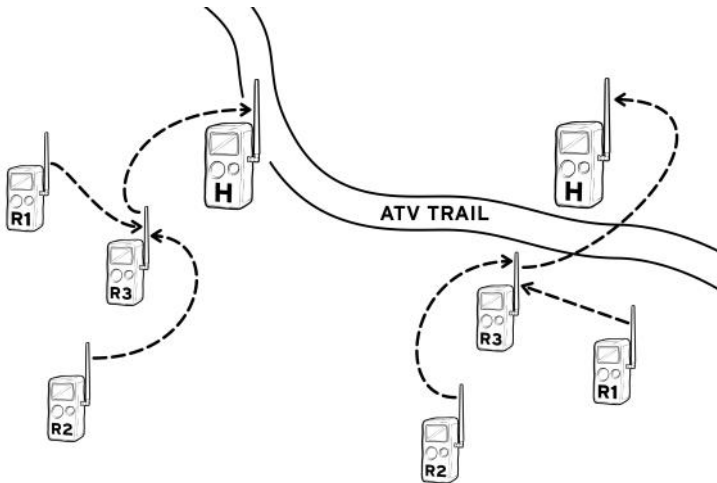
On large properties you can deploy multiple networks in various locations. For example, instead of linking distant cameras create multiple networks.

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.

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. Please note that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. 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 harmful interference to radio or television 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.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

APPROVALS: CANADA

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.

1. Limited Warranty. Non Typical, Inc. ("Non Typical") warrants the Product to be free from malfunctions and defects in both materials and workmanship for the period of the warranty ("Warranty Period"). Non Typical will repair or replace, at its option, the Product if it fails to function properly during the Warranty Period, subject to the conditions and/or limitations stated herein. Such repair or replacement is your sole and exclusive remedies under this Limited Warranty.

2. Limitations. Limited Warranty service will not be provided unless the Product is returned in the manner set forth below.

3. Warranty Period. The Warranty Period shall commence on the date of the product's purchase and shall expire on either: (a) the 1st annual anniversary of the Product's Activation Date*; or (b) the 181st Run Day of the Product, whichever comes first.

> *Activation Date is the first day the batteries are installed and is automatically set and saved by the camera. You can view the Activation Date by accessing the DEVIVCE MENU - DEVICE STATS. The date displayed is the Activation Date.*

This Limited Warranty does not cover the following:

a. Any defect in or damage to the Product that occurs due to mishandling of the Product;

b. Any defect in or damage to the Product that occurs due to repair, modification, or other similar activity performed by anyone other than Non Typical;

c. Any defect in or damage to the Product that occurs due to transport, dropping, shock, or other similar activity after your purchase of the Product;

d. Any defect in or damage to the Product that occurs due to careless or improper storage, or improper use or maintenance of the Product;

e. Any defect in or damage to the Product that occurs due to exhausted batteries;

f. Any defect in or damage to the Product that occurs due to sand, mud,

or other foreign objects entering the inside of the Product; or

g.   Any defect in or damage to the Product related to accident, misuse, abuse, use with incompatible accessories or attachments, your failure to follow proper operating instructions provided by Non Typical, claims made after the duration of the Warranty Period, or your failure to follow the instructions set forth below with respect to return of the Product to Non Typical.

ALL OTHER EXPRESS AND IMPLIED WARRANTIES FOR THE PRODUCT, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED. NON TYPICAL EXPRESSLY DISCLAIMS ALL WARRANTIES NOT STATED IN THIS WARRANTY. ANY IMPLIED WARRANTIES THAT MAY BE IMPOSED BY LAW ARE LIMITED IN DURATION TO THE TERMS OF THIS EXPRESS LIMITED WARRANTY. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OF IMPLIED WARRANTIES OR LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE EXCLUSIONS OR LIMITATIONS MAY NOT APPLY TO YOU. IN NO EVENT WILL NON TYPICAL BE LIABLE TO YOU, OR ANY THIRD PARTY, FOR ANY DAMAGES IN EXCESS OF THE PURCHASE PRICE OF THE PRODUCT. IN ADDITION, NON TYPICAL SHALL IN NO EVENT BE LIABLE TO YOU, OR ANY THIRD PARTY, FOR ANY DIRECT OR INDIRECT DAMAGES OR OTHER SPECIAL, INCIDENTAL, EXEMPLARY OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OF OR INABILITY TO USE THE PRODUCT. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR SOME PRODUCTS, SO THE EXCLUSIONS OR LIMITATIONS MAY NOT APPLY TO YOU. THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH MAY VARY FROM JURISDICTION TO JURISDICTION.

4. Notwithstanding any terms of this Limited Warranty to the contrary, no warranty coverage shall be provided for any Product purchased from, through or with the assistance or involvement of any Internet auction web site.

www.cuddeback.com