

# CamRL

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*User's Manual*



**SkyTools AB, Sweden**



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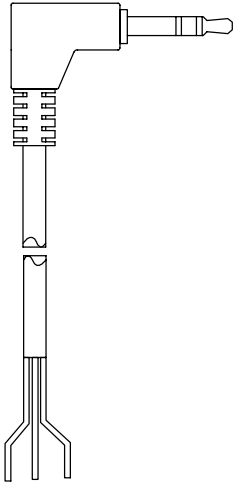
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# CamRL Set-up guide

## Prepare the remote-trip still camera cable



Black  
Red  
White

The connector that connects to your still camera is not included, as they are different for each type of still camera. You need to purchase the remote shutter trip connector separately from your local camera shop, and then configure it for your specific camera by connecting it to the CamRL receiver still camera cable.

The two electronic switches inside the receiver are polarity dependent, and need to be connected correctly for the trigger to work. Connecting it incorrectly will not damage your still camera or the receiver, but in order to make it work as designed you need to ensure that the polarity is correct. The voltage levels on the trigger pin(s) have a higher potential than the common (ground) pin. Connection guidance for some cameras are given on our web site [www.skytools.m.se](http://www.skytools.m.se)

### Typical camera trigger wiring steps:

#### One-step trigger camera (two pins in the connector)

Connect the black wire to ground pin of your camera (0v)

Connect the red wire to the trigger pin. (+ DC)

Most camera connectors have cords with this same color combination.

You can use the white wire to control one extra still camera, both cameras needs however to share the black wire

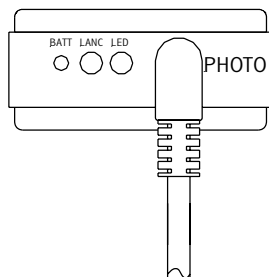
### Two-step trigger camera (three pins in the connector)

Connect the black wire to ground pin of your camera (0v)

Connect the white wire to the pre-trigger (focus) pin.

Connect the red wire to the trigger pin. (+ DC)

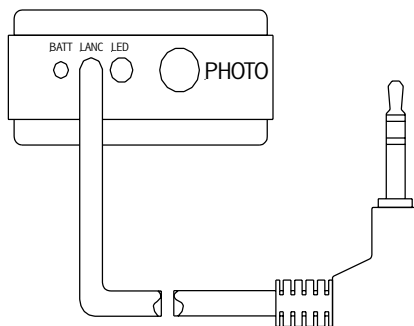
You can now plug in the 2.5 mm stereo plug in the receiver unit socket marked "PHOTO".



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## Connect the video camera

The LANC cable extends from the receiver. Plug the connector into the LANC socket on your camcorder. On most cameras you can identify the socket by the blue ring around it, the words Control-L/LANC adjacent to the socket, or by consulting your video camera manual.



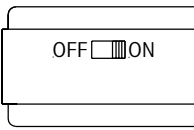
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## Connect an auxiliary battery.

The 9-volt battery (not included) should be connected if:

Only the still photo camera is connected to the receiver or you wish to be able to "wake up" (reactivate) the video camera from power-standby mode.

The receiver uses the auxiliary 9 volt battery only when the receiver is not connected to an operating video camera, or if a video camera is connected but not turned on.



Use the power on off switch when you are not going to use the system for a while. The exact duration of the battery life depends on use but it should last 1-2 weeks if left connected with the power switch on. The indicator flashes Red when the receiver is powered from the battery as a reminder to turn the power off when not in use.

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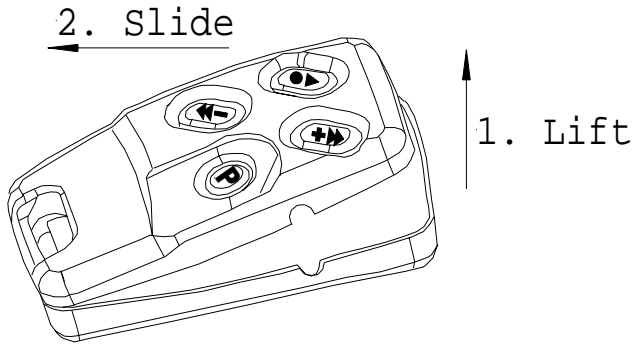
## How to change the hand remote battery

The hand remote battery (type CR2032) is pre-installed and will only need to be replaced after 6-8 months, depending on use.

Open the hand remote by removing the screw at the bottom. Lift and slide the cover in the direction of the arrow. Carefully lift up the printed circuit board at the battery holder end, and remove the battery with your fingers. Insert the new battery with the positive (+) side facing up and the negative (-) side facing down. Gently place the printed circuit board in the bottom and replace the cover before putting the screw back in. Make sure that the printed circuit board is fully in position by pushing each corner down with a thin object.

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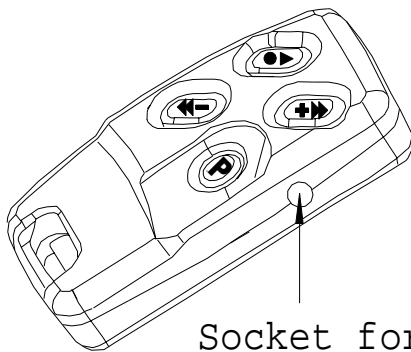
## Opening the hand remote



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## Socket for external trigger switch

The hand remote has a socket on one side. An optional cable with a coax connector can be used as an external still camera switch, purchased separately. There is also a ready-made freefall assembly available called "freefall glove". See the separate instructions delivered with the cable or the "freefall glove".

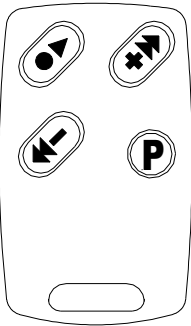


Socket for external trigger switch

# Operating the system

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## Operating the still camera with the remote-trip cable attached



Turn the still camera on

For one shot picture press the P switch on the hand remote briefly.

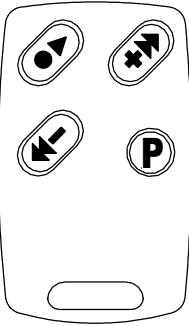
For multiple picture exposures, the camera must have automatic film advance. Set the camera to continuous advance mode, and keep the P switch pressed to activate the automatic film advance.

### **Indicator status:**

A yellow light indicates the receiver sent the signal to the still camera. The light stays on as long as you keep the P switch on the remote pressed.

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## Operating the Camcorder in camera mode with the LANC cable connected



Turn the camcorder on and put it in camera mode.

Be certain there is a tape in the camcorder.

Press O> on the hand remote to start recording. Each consecutive press of the O> switch will toggle the camcorder between record and standby.

Press +>> to zoom in (Tele) and press <<- to zoom out (Wide).

Put the camcorder in power-standby mode by pressing both the <<- and +>> switches at the same time.

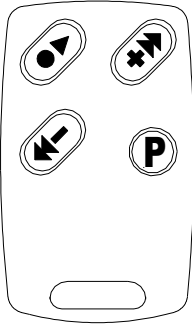
Bring the camcorder out of power-standby mode by pressing both the <<- and +>> switches at the same time. Note: The auxiliary 9 volt battery must be attached to control the camcorder's power-standby mode.

### Indicator status

- Steady blue indicates that the camera is powered in 'CAMERA' record stand-by mode.
- Steady red indicates that the camera is powered in 'CAMERA' mode and recording.
- Slow pulsing red light indicates the transition between power stand-by and record-stand-by. This normally takes 1 to 3 seconds depending on the camcorder model.
- Quick red flash with a longer off interval indicates the camera is in power-standby mode with the auxiliary 9 volt battery connected.
- While recording a steady red light with a pulsing blue light may indicate there is a low camcorder battery or less than 5 minutes of record time remains on the tape.
- While in record stand-by a steady blue light with a pulsing red light may indicate there is no tape in the camcorder, the record/save tab on the cassette is in the save position, less than 5 minutes of record time remains on the tape, low camcorder battery, or other camcorder error.

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## Operating the Camcorder in VTR mode with the LANC cable connected



Put your camcorder in VTR or play mode.

Press O> to play the tape. Each consecutive press of the O> switch will toggle the camcorder between play and pause.

The <<- switch has 4 functions. When the camcorder is:  
Playing a tape it stops the tape.

Paused it starts to review the tape

Stopped it starts to rewind the tape.

Rewinding it stops the tape.

The +>> switch has 4 functions. When the camcorder is:

Playing a tape it stops the tape.

Paused it starts to cue the tape

Stopped it starts to fast-forward the tape.

Fast forwarding it stops the tape.

Put the camcorder in power-standby mode by pressing both the <<- and +>> switches at the same time.

Bring the camcorder out of power-standby mode by pressing both the <<- and +>> switches at the same time.

Note: The auxiliary 9 volt battery must be attached to control the camcorder's power-standby mode.

Indicator status:

- Slow pulsing red light indicates indicate that the camera is in 'PHOTO' mode or in 'VTR' mode.

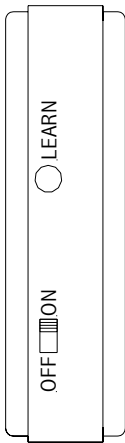
- Slow pulsing red light indicates the transition between power on and off. This normally takes 1 to 3 seconds depending on the camcorder model.

- Quick red flash with a longer off interval indicates the camera is in power-standby mode with the auxiliary 9 volt battery connected.

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## Learning additional hand remotes or receivers

Each hand remote uses a unique serial number sent each time you press a switch. This allows the CamRL receiver to distinguish between different hand remotes. The receiver can learn up to 15 different hand remotes, allowing several hand remotes to control one receiver, or one hand remote to operate several receivers. The receiver is pre-learned with the serial number belonging to the hand remote delivered with it. Use the Learn a new hand remote code procedure if you wish to add additional CamRL hand remotes or receivers to your system.



### Learn a new hand remote code

Press and release the learn switch on the side of the receiver with a thin object (pen or similar) to enter learn mode. The yellow indicator flashes to show that the receiver has entered learn mode. The receiver will exit learn mode after 30 seconds if no signal is received.

Press any switch on the new hand remote within 30 seconds. The indicator turns yellow to show that the receiver has successfully learned the new hand remote.

### Erasing the learn memory

If you wish to limit the receiver to only respond to one unique hand remote and you have previously added additional hand remotes, you need to erase the learn memory. Then, you must teach the CamRL the hand remote code you wish to use. The CamRL does not retain any hand remote codes in its memory once it has been erased.

Press and hold the learn switch with a thin object (pen or similar). When the yellow indicator light is turned off you can release the switch. The learn memory is now erased.

# Specifications

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## Hand remote

Length .....	60 mm
Width .....	35 mm
Depth .....	13 mm
Battery .....	3 volt (type CR2032)
Battery life .....	8 month (depending on use)
Range .....	20meters*
Connections .....	external still camera switch
Frequency .....	433.92 MHz

\*based on open-field testing. Actual range varies and depends on factors such as physical and atmospheric conditions.

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## Receiver unit

Length .....	58 mm
Width .....	35 mm
Depth .....	16 mm
Auxiliary Battery .....	9 volt (not included)
Battery life .....	2 weeks (depending on use)
Still camera switch 1 .....	max 100mA load
Still camera switch 2 .....	max 100mA load

Cable lengths	
LANC .....	30cm
Indicator .....	45cm
9 volt battery .....	30cm
Still camera cable .....	100cm
Frequency .....	433.92 MHz









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