

# Pix<sup>TM</sup> CONTROLLER

Trail Cameras and Remote Surveillance Systems

## Sony LANC HD Servo NightShot Instruction Manual



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## **Introduction**

The PixController Sony LANC HD Servo NightShot system is a motion-activated camcorder system. The unit is activated by the PixController remote wireless PIR sensors. The camcorder is controlled via the Sony LANC protocol by powering the system up upon a motion trigger event, setting the camcorder to record, and powering the camcorder down once the user set time has expired.

The Sony LANC HD system utilizes advanced battery savings sleep mode whereby its passive infrared, wireless motion detector (PIR) automatically switches the Sony LANC HD system from sleep mode to active mode when something walks into the target area. This mode will enable the Sony LANC HD system to be deployed unattended for long periods of time. The Sony LANC HD system also comes with a wireless keyfab option for manually triggering the base recording unit for various setups/operations.

The Sony LANC HD has a built in servo system which will activate the NightShot button during night hours. By sensing the light conditions via the light sensor located on top of the Sony LANC HD case the system will engaged the NightShot button if needed. Note that this feature requires mechanical setup and should be tested each time the system is placed into the field.

## **Inspection/Acceptance of received products**

The buyer shall be responsible for inspecting all products shipped prior to acceptance; provided, however, that if Buyer shall not have given PixController, Inc. written notice via email of rejection or shorted items to [support@pixcontroller.com](mailto:support@pixcontroller.com) within ten (10) days following receipt by Buyer, the products shall be deemed to have been accepted by Buyer.

All electronic products sent back for a full refund are subject to a 15% restocking within thirty (30) days from purchase. Products authorized for return must be in their original unopened packaging to receive credit. Unauthorized returns will not be accepted. After thirty (30) days from purchase items may not be returned for a full refund. Your electronics are covered for a full 6 month period covering all part failure under normal use.

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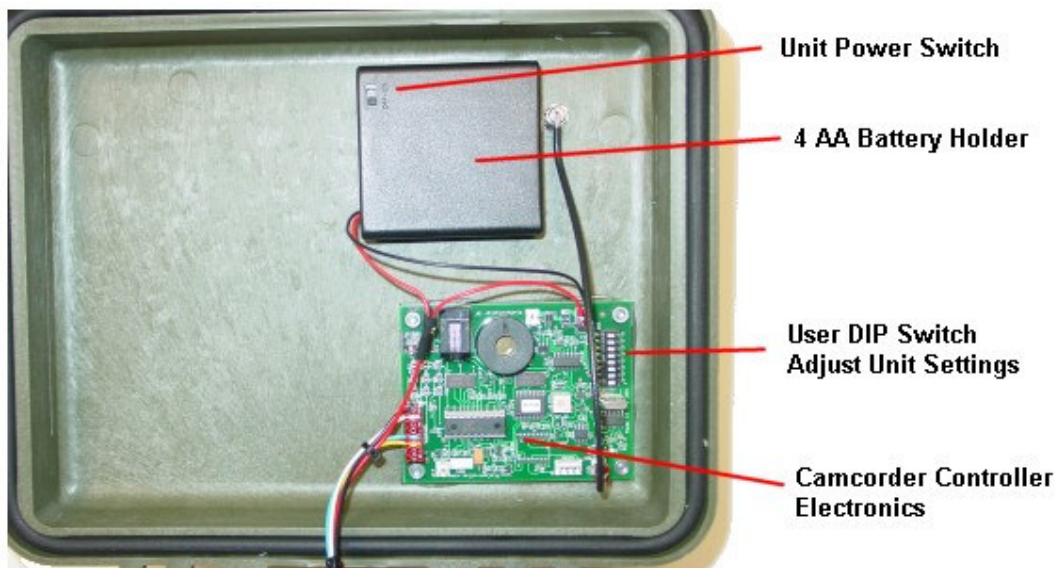
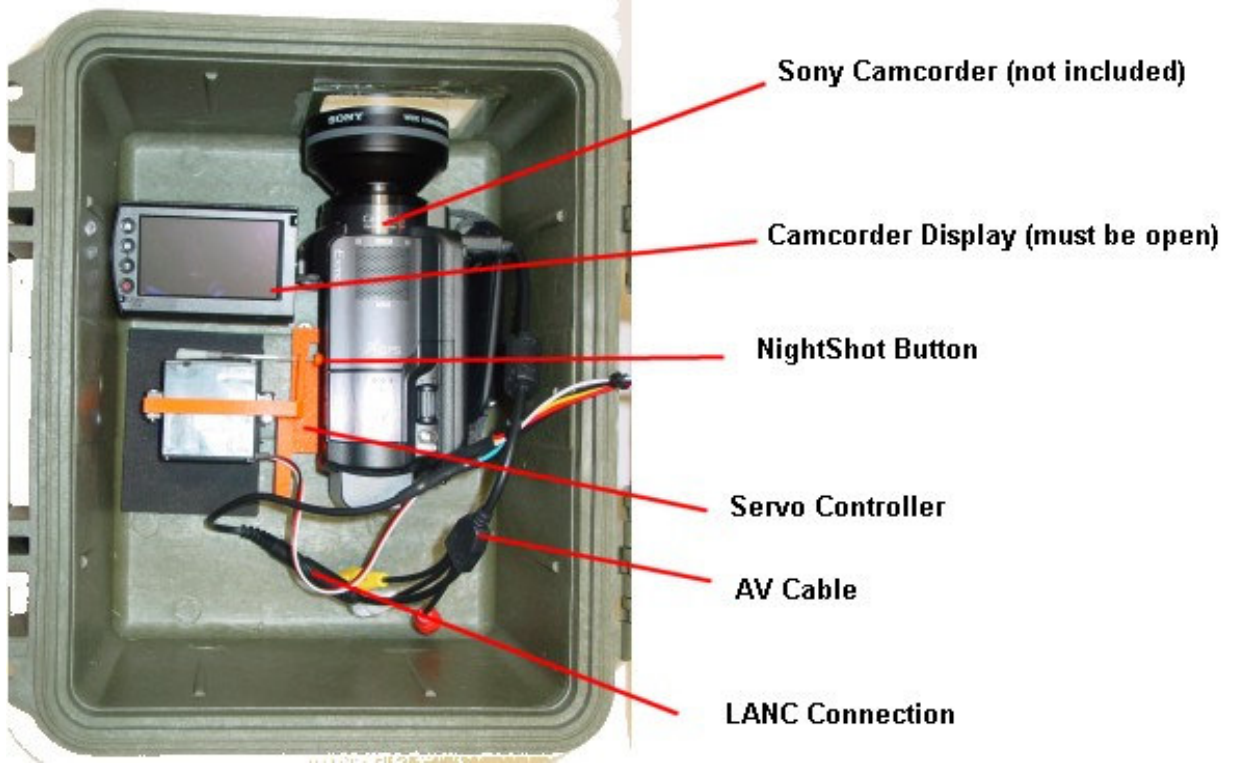
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**Sony LAND HD System Components**



***Sony LAND HD Exterior Components***



**Sony LANC Interior Components**

## Setting up the Sony LANC HD System

Connect the AV Cable to the Sony camcorder AV Port



Connect locate the female end of the 2.5mm LANC connector on the AV cable and the 2.5mm LANC cable from the control electronics



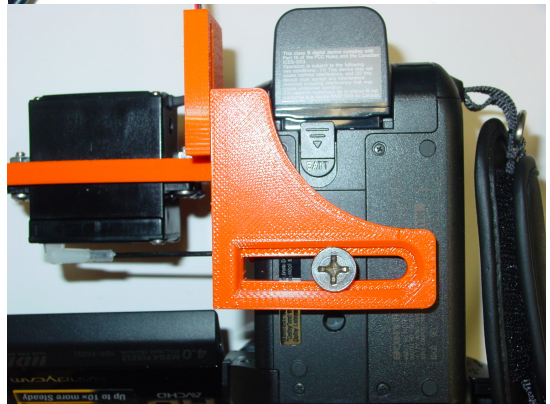
Connect the 2.5mm LANC AV cable to the 2.5mm LANC cable from the control electronics



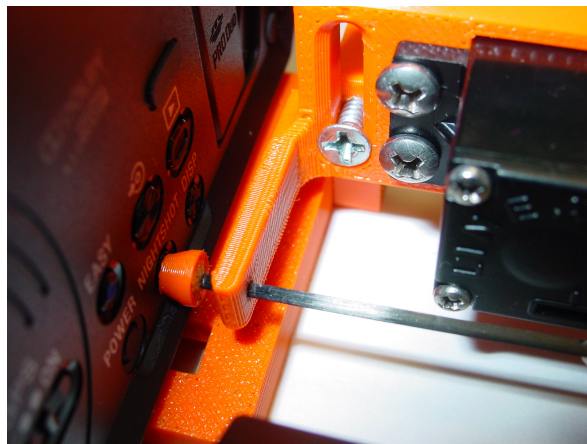
First open the camcorder LCD window to power the camcorder on and expose the NightShot button.

Carefully mount the Servo controller to the bottom of the Sony camcorder with the 1/4-20" screw. Be sure not to over tighten the screw which may damage the plastic.

Note, you may attach Velcro to this mount to keep the camcorder positioned inside the case.



There are 3 screws including the 1/4-20" screw on the bottom of the camcorder to adjust the position of the NightShot plunger button. Be sure to check this adjustment every time the unit is placed in the field.



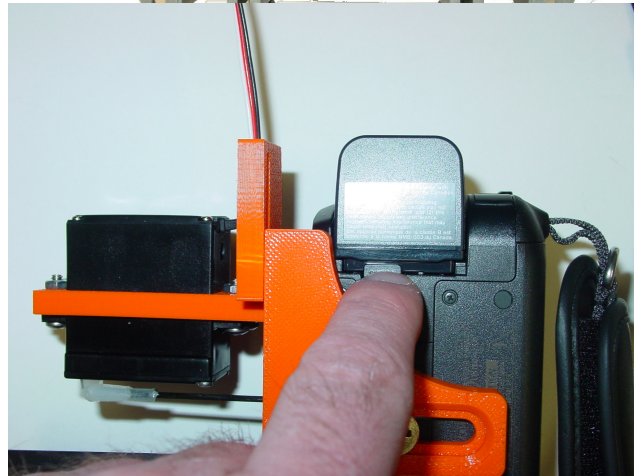
Once set up the plunger button should look like the photo to the right. The button should be close to the NightShot button, but not be touching it.



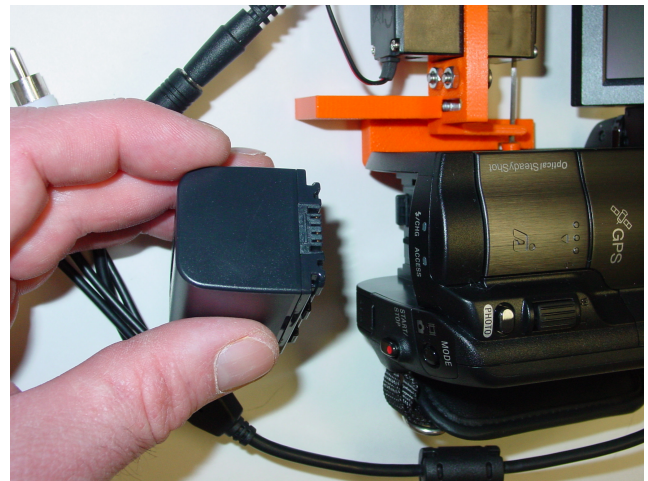
Place the camcorder unit into the Sony LANC HD case as shown. Again, you can use Velcro on the bottom of the Servo assemble to keep the camcorder in place.



Since the Sony LCD window is open the battery must be removed when not in use. Remove the battery from the bottom of the camcorder by pushing the hinge as shown.



Insert the battery before operation as shown.



On the bottom of the Sony LANC HD unit is a tripod/camera mount. You can use any standard security camera mount or tripod to mount the system, or just place on the ground without using this mount.





## **Powering up the Sony LANC HD System**

Before you power the Sony LANC HD system be sure you have followed the setups above to install the AV-LANC cable and Servo NightShot controller. Be sure the camcorder is powered on.

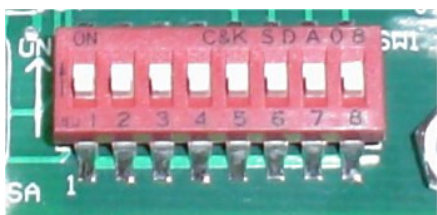
To power up the system turn the Power on/off switch to the "on" position. You will hear a short melody from the Power Box letting you know it's powered on. If you do not hear this sound check to be sure the 4 AA batteries that power the controller electronics. Also, unplug the LANC cable for about 30 seconds and re-connect. The middle connection on the LANC cable is power from the camcorder, and at times this will cause the controller not to boot properly. If this happens just unplug the LANC cable and let the system sit in a power down mode for 30 seconds which will solve this problem

Once the system is powered there will be a 30 second delay. The controller will power down the Sony camcorder. If the camcorder is not connected a series of 10 beeps will send out an error message.

After this 30 second time expires you will hear 4 quick beeps which let you know the system is going into a 1 minute auto walk test phase. If you walk past the Wireless PIR motion sensors at this point you will hear 1 beep for a "A" Sensor or trigger sensor, and 2 beeps for a "B" sensor or power up sensor. You may want to keep the case open so you can hear this from a distance.

You are free to walk around the sensor area to be sure you have good signal between the wireless PIR sensors and the Sony LANC HD controller box. Be sure to have the sensors and box about 2 feet off of the ground to get the best distance between sensor and box. After this 1 minute walk test phase expires you will hear 4 quick beeps again letting you know the system is going "active". After this point the system is active.

## How to customize the Sony LANC HD DIP Switch settings



**Sony LANC HD User DIP Switch**

The Sony LANC HD DIP Switch will let you customize how the remote sensors will trigger the Sony LANC HD controller. Here you can adjust the address of which sensors to respond to trigger the Sony LANC HD, Walk-Test mode, use KeyFob or PIR sensor, and camera test mode.

Sensor Address	Switch 1	Switch 2
"A" Address	Down	Down
"B" Address	Up	Down
"C" Address	Down	Up
"D" Address	Up	Up

Delay between events	Switch 3	Switch 4
No Delay	Down	Down
1 Minute	Up	Down
5 Minutes	Down	Up
10 Minutes	Up	Up

Recording Times	Switch 5	Switch 6
30 Seconds - Continuous	Down	Down
1 Minute	Up	Down
2.5 Minutes	Down	Up
5 Minutes	Up	Up

Operation Mode	Switch 7	Switch 8
24 Hour Recording	Down	Down
Night Only Recording	Up	Down
Day Only Recording	Down	Up
Walk-Test & NightShot Setup	Up	Up

### Setting the Address Code

Switches 1 & 2 control the address code of the Sony LANC HD controller box. Both the SlimFire Remote Control or Wireless PIR Sensor, and Sony LANC HD controller box need to be set to the same address code in order for the unit to function properly. There are 4 unique address codes you can set the Sony LANC HD to respond to.

The Sony LANC HD is compatible with the SlimFire remote and PIR wireless motion sensors. The address code here is the "house code" from A-P, however, the Sony LANC HD only will recognize "house codes" A-D. For more information about setting the house code on your SlimFire remote or Wireless PIR Motion Sensor.

***Out of the box both the SlimFire remote, Wireless PIR sensor will be defaulted to the "A" Address Code.***

Why set different address codes? There may be a situation when you want to have several Sony LANC HD units in a recording session. You may want to only have several Sony LANC HD units respond to SlimFire or Wireless PIR motion sensors. For this you have the ability to set the address between each of these devices. It is a good idea to use a marking pen and write the address code on your SlimFire remote or Wireless PIR motion sensor if not set in the default "A" address code.

## **Delay Between Events**

Switches 3 and 4 let you set the delay between recording events. This setting allows the user to adjust the delay between when the camera is active again after the last recording. This setting will prevent the unit from capturing too much footage and saving battery life in a situation where the camera may be setup over a feeder. The default setting is no delay.

## **Recording Time**

Switches 5 and 6 let the user select how long the camera will record after motion activation. The default setting is 30 seconds – continuous. In this setting the camera will record for a 30 second period and if at any time during this period the controller receives another motion trigger event the recording time will be pushed out another 30 seconds. This mode will record for as long as something is in front of the camera.

The user can also set the controller to record for a pre determined amount of time from 1 minute to 5 minutes.

## **Operation Mode**

Switches 7 and 8 control the operation mode of the camera system. This mode lets the user set the camera unit to record 24 hours, night only, and day only.

Setting switches 7 and 8 to the up position puts the unit in walk test mode and Servo NightShot test mode. When in this mode it will let you walk past the PIR sensor to test the signal strength between the wireless motion sensor and the recording box. A beep will indicate a trigger event. Also, when in this mode the Servo will engage the NightShot button to test the Servo button positioning. Use the remote KeyFob to move the servo motor when setting up the servo mounting system.

## **Power On Time**

Switch 4, 5 and 6 sets the time the UndercoverEye™ Power Box will power up the 12V devices upon a trigger event from a wireless sensor.

## **Walk-Test Mode**

When Test Mode is set to “On” it will let you test out the “line of sight” distance between the triggering unit, i.e., the SlimFire remote control or Wireless PIR motion sensors, and the UndercoverEye™ Power Box unit. This is useful to be sure the camcorder units can see commands from the triggering units.

**Note1 : To put the Sony LANC HD system back into “recording mode” when using Test Mode.**

**Note 2: When changing switch setting you must re-boot your UndercoverEye. When re-booting you must wait approximately 30 seconds before turning power on again.**

## Using the SlimFire Remote Control KeyFob

Your RF wireless remote control unit is used to power up your Sony LANC HD unit via a wireless command by pressing the buttons on the remote control.

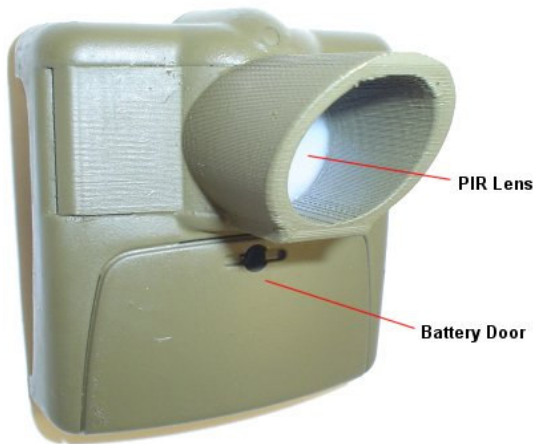
By pressing the "On" button, note there are 2 sets of "On" and "Off" buttons which are redundant. This will power up the camcorder and start it recording. power down the camcorder.

Your RF wireless remote control can control your Sony LANC HD unit from a distance up to about 180 feet "line of sight". For best reception be sure to have a clear view of the Sony LANC HD unit from your controlling location.



*RF Wireless Remote Control KeyFob*

## Introduction to the Wireless PIR Motion Sensor



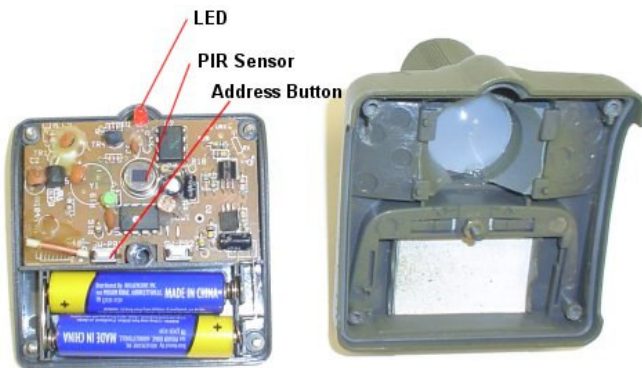
The Sony LANC HD unit is a RF (Radio Frequency) device which works in conjunction with the wireless PIR motion sensor. The Sony LANC HD unit "listens" for wireless commands sent from the wireless PIR motion sensor when the motion sensor is tripped. When the Sony LANC HD unit receives a trigger event it will power up the attached 12V devices.

There are 2 AAA batteries that power the motion sensor which will last for a year of continuous use. To replace them just remove the battery door.

Never touch the PIR lens as this could damage the PIR sensor

## Setting Wireless PIR Motion Sensor Addresses

Each wireless PIR sensor can be setup to send out a unique address. Wireless PIR sensors are assigned an 'address', which consists of addresses between "A" to "P".



To change the Address that the Wireless PIR transmits: First, remove the 4 screws from the back of the case and take off the cover as shown. Press and hold the **Address** button (under the battery compartment lid) the red LED flashes first and then blinks the current setting (once for A, twice for B, etc.). Release and immediately press the button the desired number of times for the House Code you want to set (once for A, twice for B, etc.) and **hold the button on the last press**. 3 seconds after the last press (while holding the button) the red LED blinks back the number of times for the code you set. Release the button.

## Mounting the Wireless PIR Motion Sensor



To mount the Wireless PIR motion sensor first remove the battery door and remove the AAA batteries. You will see 2 screw holes in which you can mount a small mounting plate or screw it to the surface of the mounting area.

Try to keep the sensors at 2' to 3' from the ground if you want to get the best detection of targets on the ground.

The range of the PIR detection is 40' to 80' depending on air temperature and temperature of the target. The hotter the target the longer detection range you will have. For example a car can be seen at a greater distance.

The RF wireless range back to the DigitalEye unit is about 100' to 150' depending on line of sight.