en/LancCtrl_V1.1

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1 LANC-Ctrl Version 1.1

Shoplink: LANC-Ctrl V1.1

It is a control board incl. video output to operate cameras with a LANC interface (i.e. Sony cx730/cx760/cx570)
The LANC-Ctrl can be connected either way to the FlightCtrl or to two PPM outputs of a receiver.
Via the LANC protocol, functions like triggering photos, starting video shots and the zoom (with variable speed), can be controlled.
To start the recording the switch on the remote is switched permanently to REC. That makes the start recording way safer as with the REC-Start/Stop button of the infra-red remote.

INFO:
Sony Videocameras build since 2013 feature a new multi-connection. Only the "VMC-AVM1" adapter (Link) can connect it to the LANC-Ctrl..

1.1 Innovations

Compared to the previous version LANC-Ctrl V1.0 the new version is considerably smaller, easier and more flexible.

An additional Y-cable for the video- and LANC connection is no longer necessary. The LANC cable is now directly connected to the electronic.
You can take now the video signal from the video transmitter or directly via an adapter from the LANC-Ctrl.
A new and advanced software makes the use of the alternative software unnecessary. In that way, i.e. the Sony CX730 and also the Sony HDR-CX350VE, can be used without any changes.

1.2 Video

1.3 Functions

Following functions can be operated:

- Zoom-in & out (variable speed from very slow up to very fast)
- REC Start/Stop
- trigger photo (both, in photo mode as well as in video mode)

The zoom function can be used via a potentiometer / slider or a 3-way switch on the transmitter.
Via a potentiometer / slider the zoom speed can be controlled infinitely. With a 3-way switch is no control of the zoom speed possible.
The functions are as follows:

- Middle position of the 3-way switch or potentiometer / slider = Zoom STOP
- Switch or potentiometer / slider down = Zoom OUT
- Switch or potentiometer / slider up = Zoom IN

To trigger photos and start recording, this is possible with the 3-way switch.
The functions are as follows:

- Switch down (-127) = Function OFF (Recording STOP)
- Switch in middle position (0) = Triggering the video camera (Please read the instructions of the video camera. Not usually possible with HD recording)
- Switch up (+127) = Recording START

1.4 Technical Data

- Supply voltage max. 6V=
- Weight: approx.14g with cables
- Dimension of the PCB: approx. 30x17,5mm
- Cable length: SONY LANC approx. 12cm
- Cable length: Servo cable apprx. 23cm

IMPORTANT - Please read!

The LANC-Ctrl has two inputs - PPM1 + PPM2.

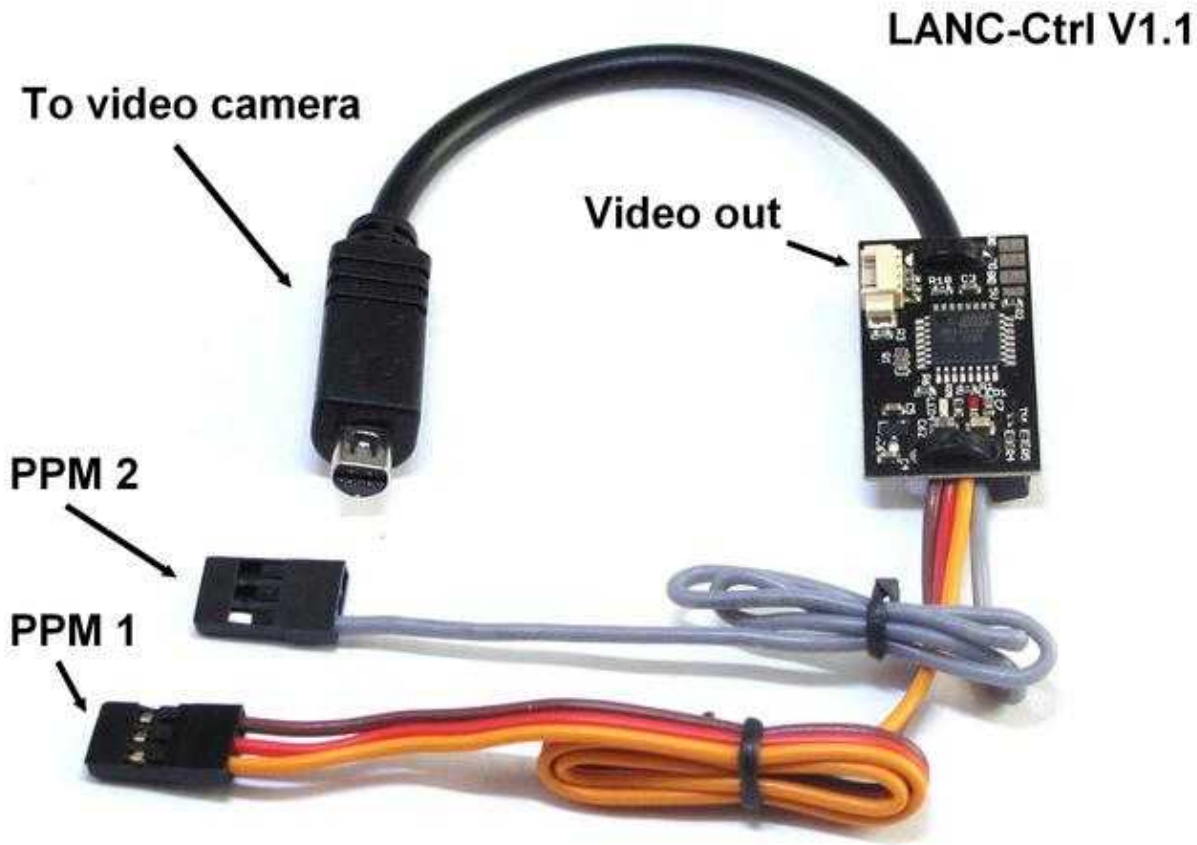
Connect always both inputs (PPM1+PPM2) either directly to the FlightCtrl **OR** to the receiver.

The supply voltage of max. 6V for the LANC-Ctrl comes via the 3-wire PPM cable.

2 Inputs/Outputs

The LANC-Ctrl has two PPM inputs (PPM1 + PPM2).

- PPM1 = Supply voltage LANC-Ctrl + Zoom in / Zoom out
- PPM2 = REC on/off + trigger photo

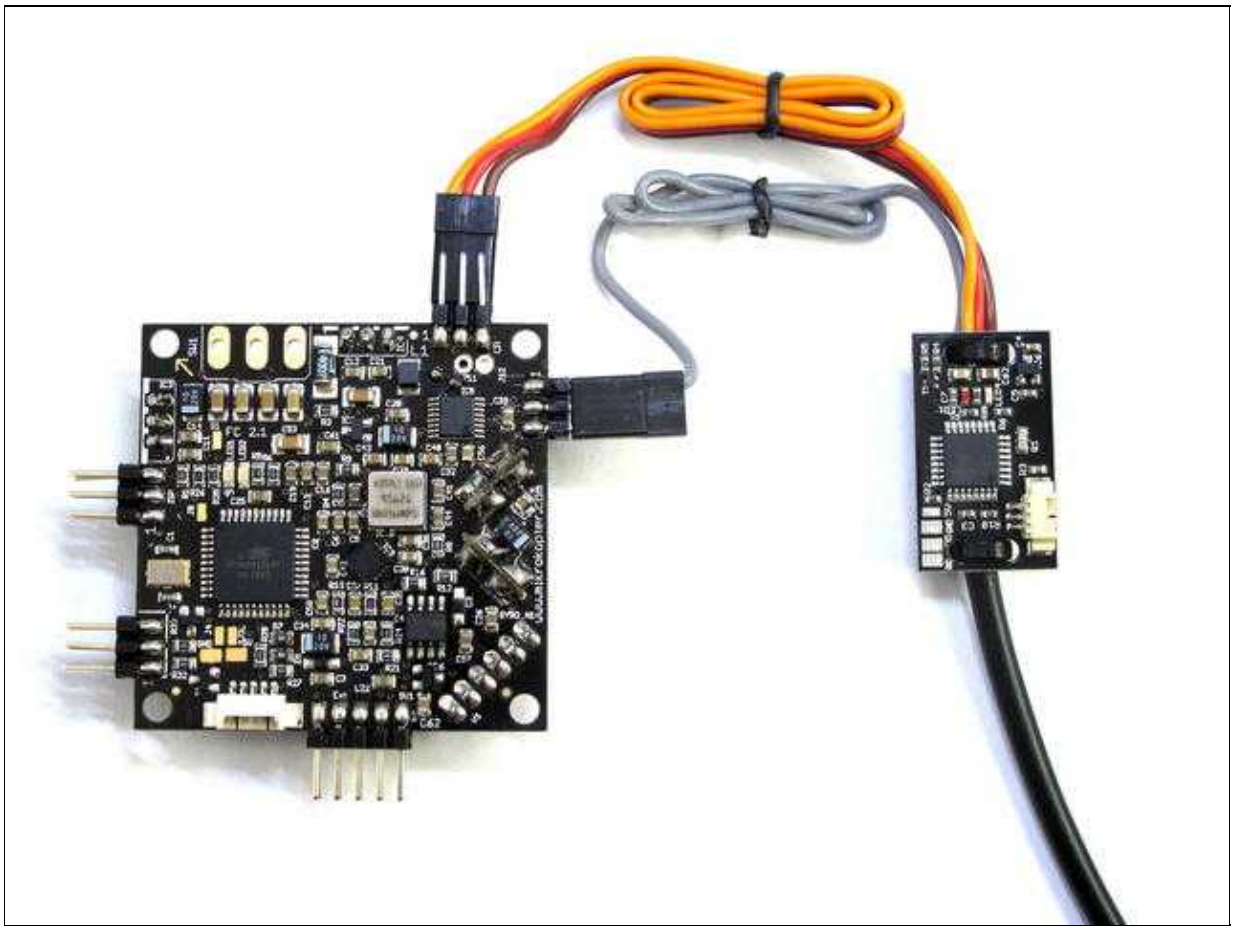


3 Connection

The LANC-Ctrl can be connected via the servo outputs of the FlightCtrl or via a conventional receiver with servo outputs.

3.1 Connection servo output FlightCtrl

The LANC-Ctrl can be connected to the servo outputs "Servo3" and "Servo4" (Link) of the FlightCtrl.



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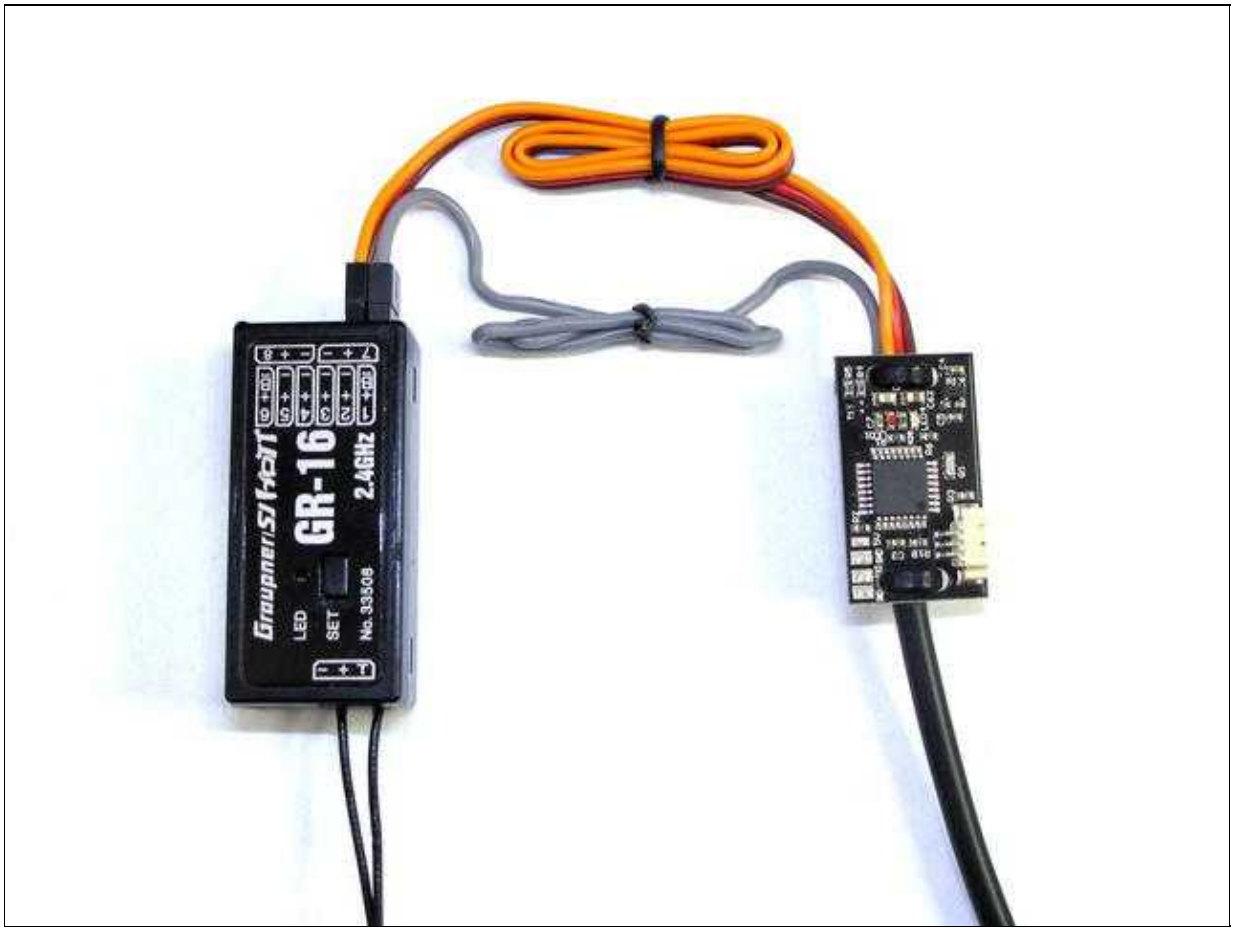
3.2 Connection to the receiver

The LANC-Ctrl can be also connected directly to the receiver.



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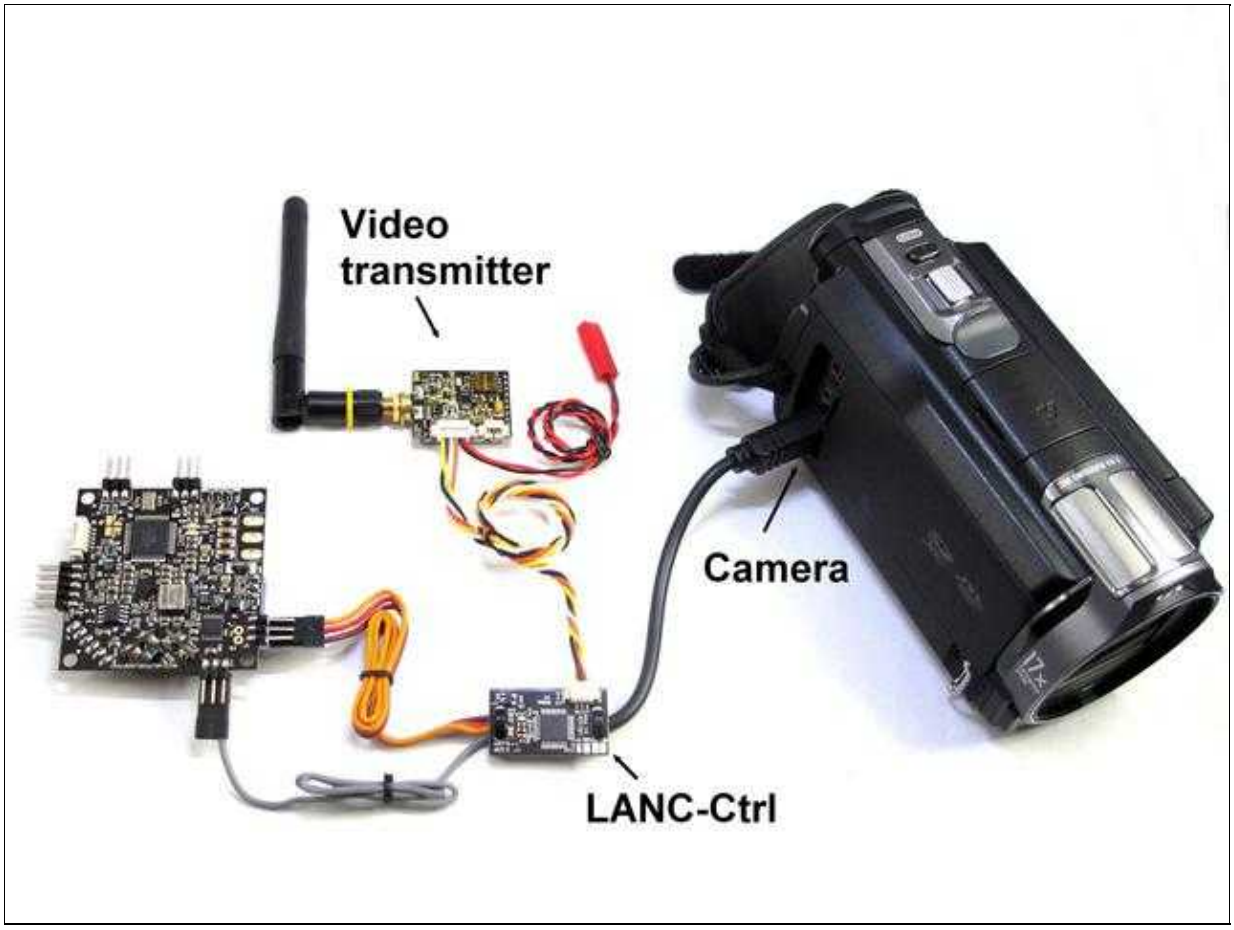
3.3 Connection camera + video transmitter

The connection to the video camera comes via the LANC plug.
If the video transmitter AV NANO Stinger is used (Link), it can be connected directly to the LANC-Ctrl .



(To enlarge -> click on the image)

If a different video transmitter is used without an appropriate plug, an adapter can be used:

(To enlarge -> click on the image)

4 Settings

If the LANC-Ctrl is connected directly to the FlightCtrl or only to a receiver, some smaller adjustments of the settings need to be done.

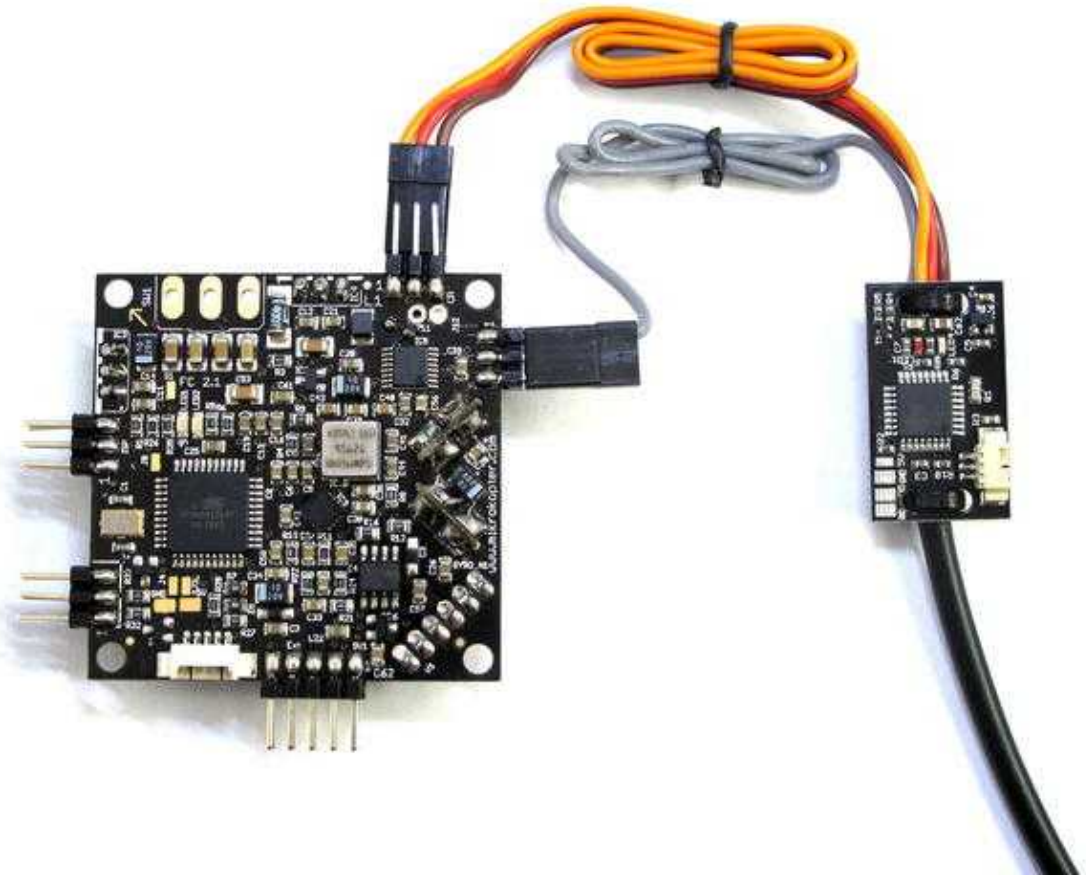
In this example we take:

- Channel 7 for the function *Zoom* and
- Channel 11 to trigger as well as start/stopp the recording.

4.1 Settings FlightCtrl

Step 1

PPM1+PPM2 of the LANC-Ctrl should be connected to *Servo3* and *Servo4* of the FlightCtrl.

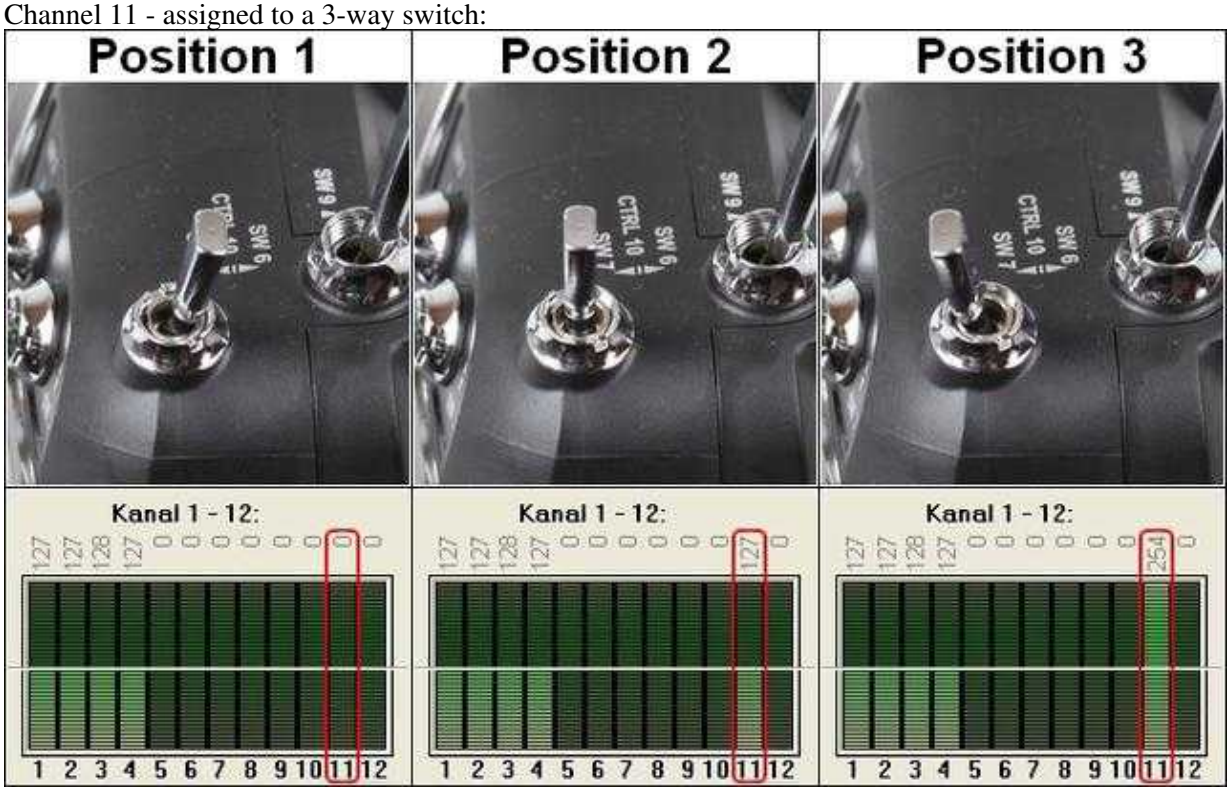


Step 2

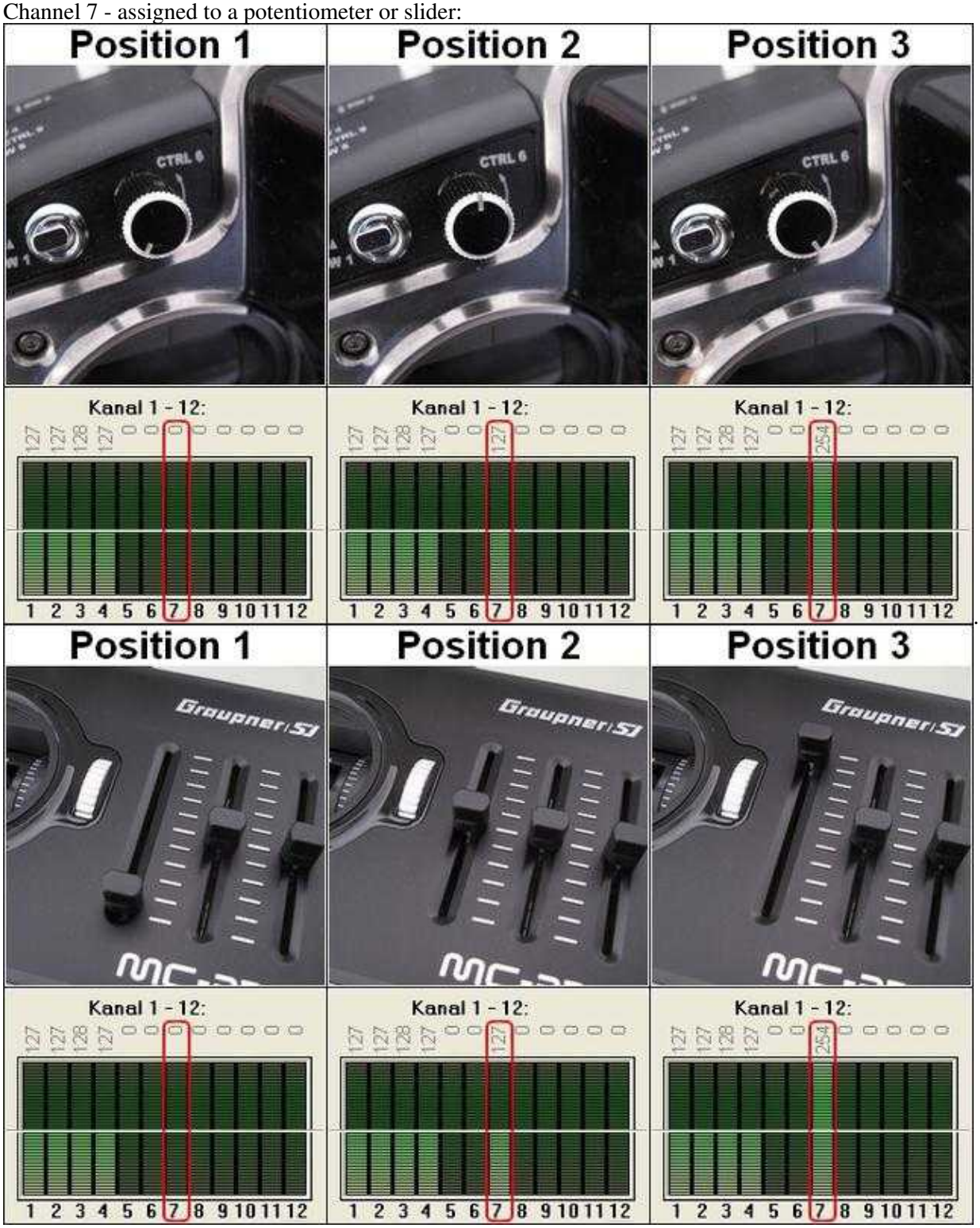
At the transmitter a potentiometer or a slider is assigned to channel 7 and a 3-way switch to channel 11.
(The assignment of channels to a switch, button or potentiometer can be read in the instruction manual of the transmitter)

Via the tab *Channels* in the settings of the KopterTool the assignment / function can be checked.

Channel 11 - assigned to a 3-way switch:



Channel 7 - assigned to a potentiometer or slider:



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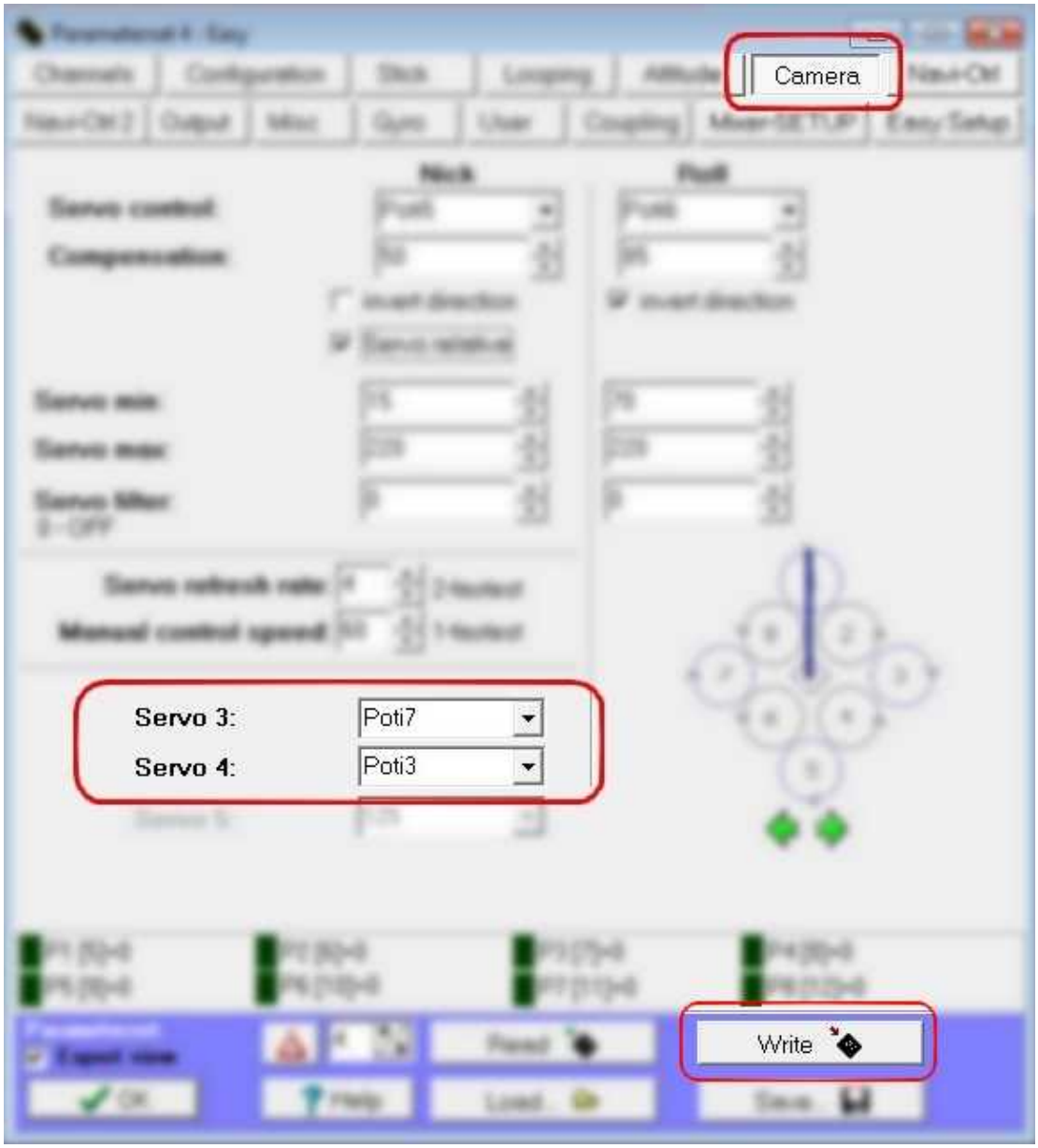
Step 3

In the settings of the KopterTool channel 7 (Poti3) and 11 (Poti7) will be assigned to the servo outputs *Servo3* and *Servo4*.



INFO: The channels 5-12 in the settings are referred as *Poti 1-8* (Link).

Done.

After the calibration of the gyros (Throttle up + Yaw left) the servo outputs of the FlightCtrl are active and can be controlled via the transmitter.

4.2 Settings receiver

The LANC-Ctrl can also be operated directly via a receiver.
This example shows:

- Channel 7 for the function *Zoom* and
- Channel 11 to trigger as well as start/stop the recording.

Step 1

PPM1+PPM2 of the LANC-Ctrl will be connected to the receiver.
PPM1 is connected to the servo output 7, PPM2 to servo output 11.
(Receiver with appropriate servo outputs required.)

Step 2

At the transmitter a potentiometer or a slider is assigned to channel 7 and a 3-way switch to channel 11.
(The assignment of channels to a switch, button or potentiometer can be read in the instruction manual of the transmitter)

Channel 11 - assigned to a 3-way switch:

Channel 7 - assigned to a potentiometer or slider:

Done.

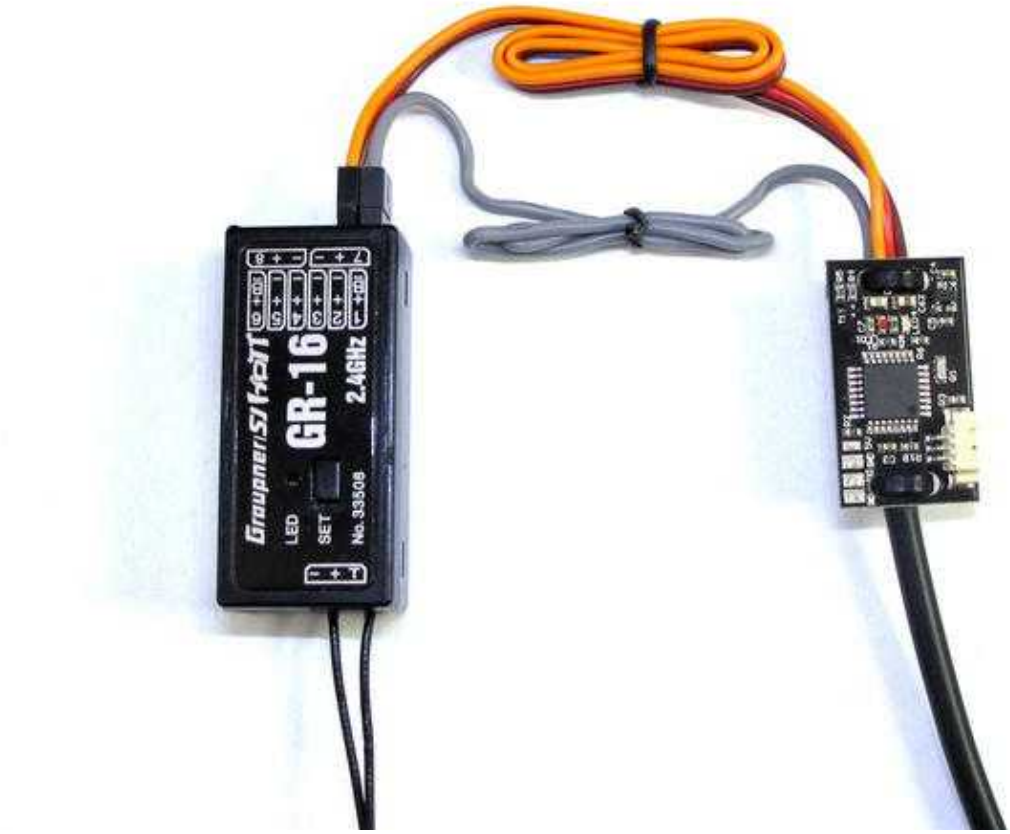
If there is no receiver with 12 or more servo outputs available, a Graupner HoTT receiver with less servo outputs can be used.
To each Graupner HoTT receiver (GR-12 / GR-16 / GR-24) new channels can be assigned to the servo outputs.

For this example we take a Graupner HoTT receiver *GR-16* with 8 servo outputs.
Here should be:

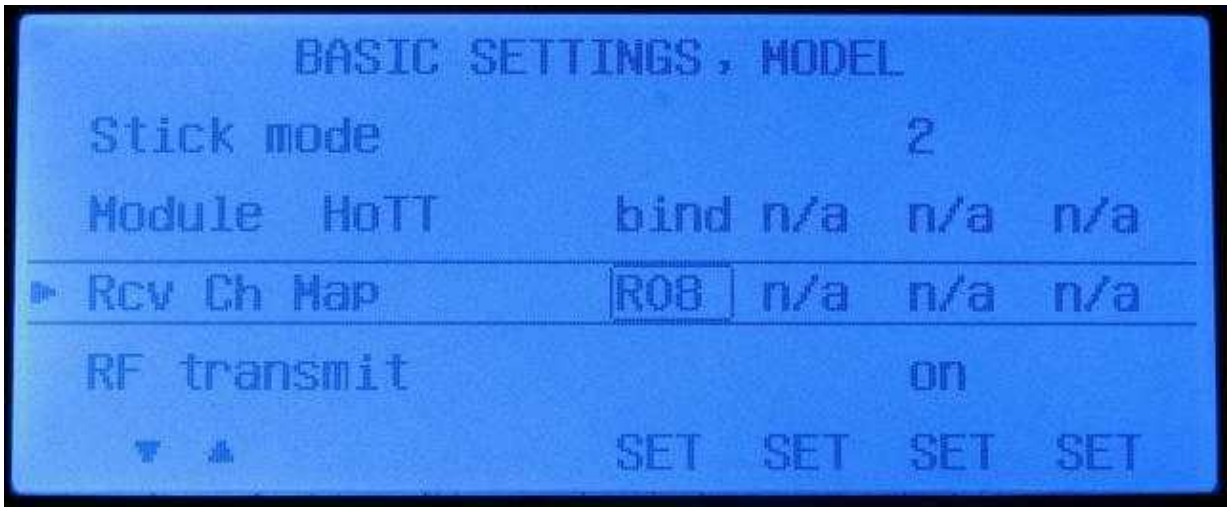
- **Channel 7** (function *Zoom*) at **servo output 2**

and

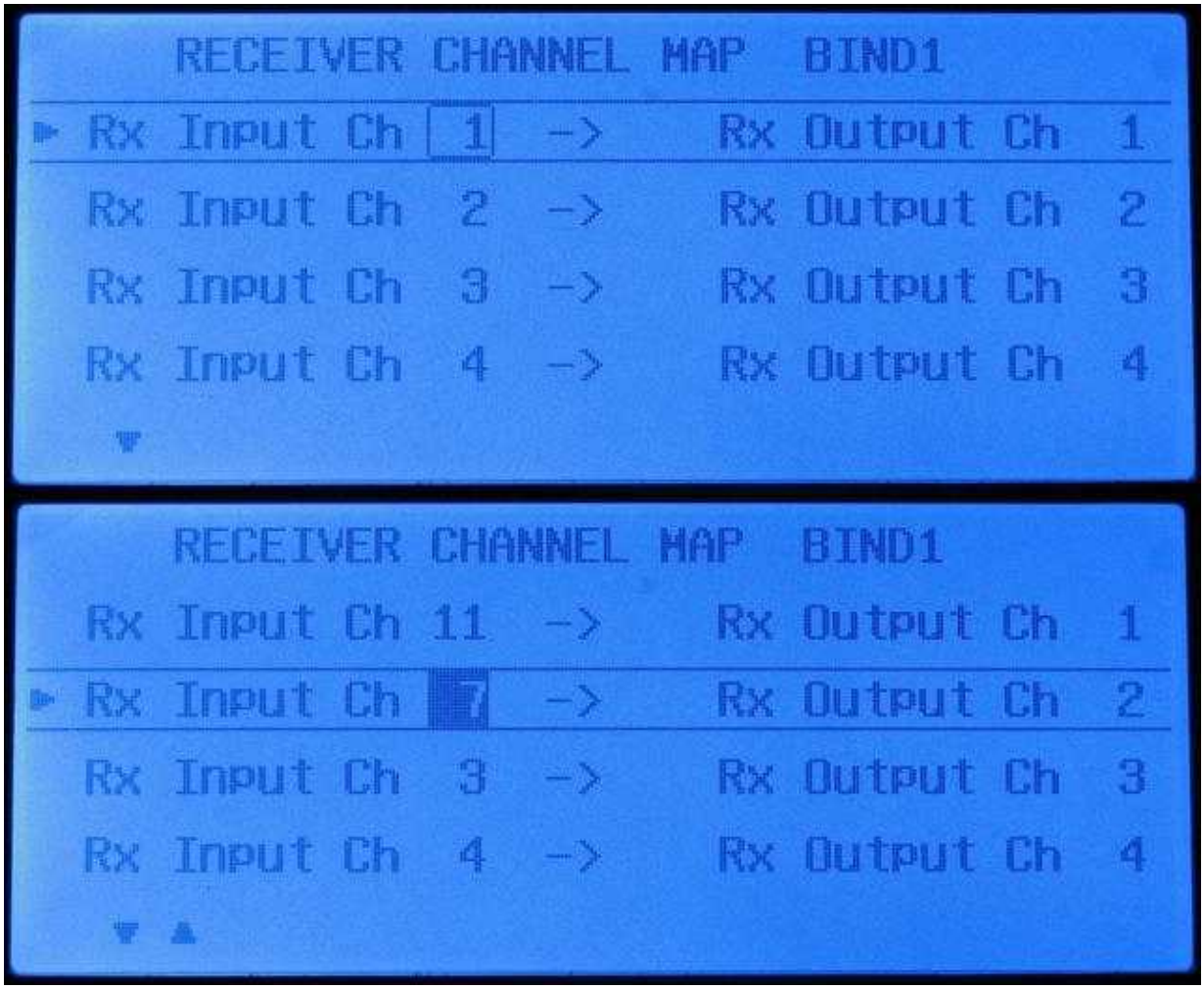
- **Channel 11** (trigger + start/stopp the recording) at **servo output 1**.



On the Graupner HoTT transmitter switch to the menue **base setup model**. There you choose *Rcv Ch Map* (E08) with the button **SET** .

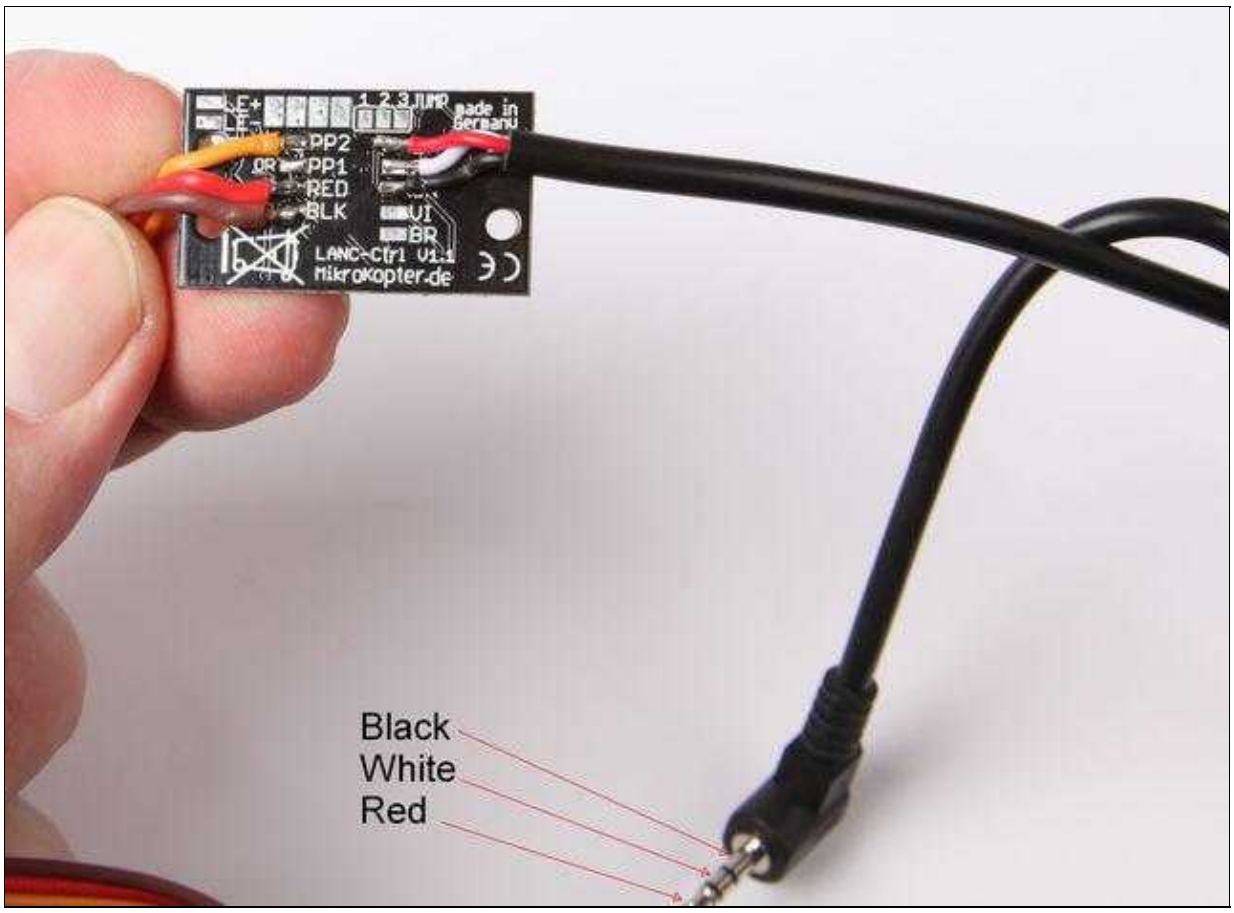


In the window which opens up choose the first servo output *Rx Output Ch 1* and set the *Rx Input Ch 1* to channel 11.
At *Rx Output Ch 2*set the *Rx Input Ch 2* to channel 7.



5 Modifikation for Blackmagic camera

- Rec on/off can be controlled
- Zoom ist not supported by this camera
- The PPM-Cable for Zoom is not needed. If you want to remove it, connect the orange line of the PMM-Cable to "PPM2" (see below)
- Use a 2-stage switch of your transmitter
- Attach a 2,5mm connector like this:


1 2 3 JUMP
made in Germany
PP2
PP1
RED
BLK
VI
BR
LANC-Ctrl V1.1
Mikrokopter.de
Black
White
Red

6 LANC-Ctrl V1.0

Here you can find information about the previous version LANC-Ctrl V1.0: Link

- KategorieMK-Baugruppe/de