Configuration Guide - Using the AEON-CC or RXSM-E with ARRI ALEXA in Multicam Mode

Revision 4 – 05.11.20

VideoSys Broadcast Ltd
Unit 1-2 Forest Barn Farm
Turners Hill Road
Turners Hill
West Sussex
RH10 4QH
UK

+44 (0)1293 541 200
sales@VideoSys.tv
VideoSys.tv

Contents

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Introduction

The VideoSys camera control solution consists of several distinct components; an 'RCP' (Remote Control Panel), this is made by a camera manufacturer such as Sony and is connected to the 'IDU' Indoor Unit. Up to four RCPs can be connected to a single IDU. The 'ODU' Outdoor Unit is basically the data transmitter, it connects to the IDU and takes the narrow band control data produced by the IDU and transmits it to the data receiver 'RX' over a UHF radio link. From this point on the terms IDU, ODU, RCP and RX will be used.

For simplicity we will focus on a Uni-directional setup and note the connection process for the camera control receiver, be that an AEON-CC or RXSM-E to the ARRI camera is the same.
Examples of configuration in this manual will use an ARRI AMIRA may not be completely relevant to different equipment. For specifics on setting up equipment not provided by VideoSys Broadcast, please refer to manuals supplied by the manufacturer of that product.

Requirements

Hardware

You will require a minimum of the following:

- 1 x AEON-CC or RXSM-E
- 1 x Multicam cable, depending on the Arri camera this could be an RJ45 to LEMO cable or a Standard RJ45 ethernet cable.
- If using the RXSM-E you will need a power cable for the RXSM-E (See your local distributer).

NOTE Diagrams for the required cables are at the end of this document

Licence Options

Ensure that the AEON-CC or RXSM-E are licensed for use with ARRI cameras.

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Configuration

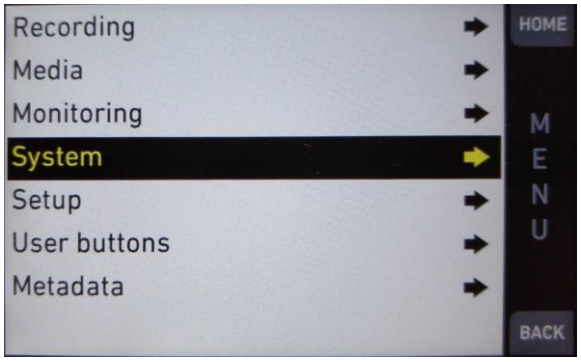
Camera Control Path:

The diagram above shows the data flow from the RCP to the camera. There is a local loop between the RCP and the IDU. The IDU always maintains a connection to the RCP regardless. The narrowband data generated by the IDU is then sent to the ODU via RS485, RS232 or IP connection. This data is transmitted by UHF radio to the RX at the camera. Again, there is a local loop communication between the camera and the data RX. The data RX receives the UHF radio data and converts it into Arri protocol to control the camera.

ARRI AMIRA set up menus

There are user set up files available on the Arri camera, see the operation guide for more information. But, note is it possible to have a file preconfigured for the Multicam mode. Multicam mode is used in multiple camera set ups to allow the user to control the cameras picture parameters 'live'. This is very useful when the cameras are being used in a live to air show, but also to help reduce the post girding process.

Turn Multicam on



From the main menu select System

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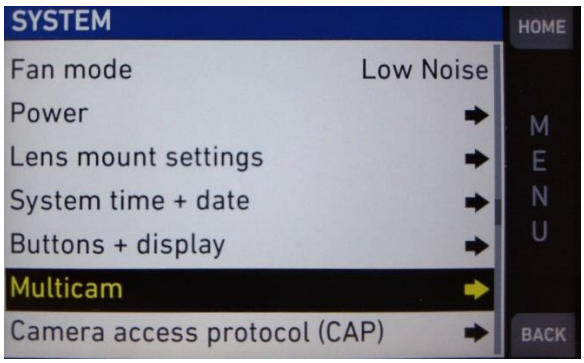
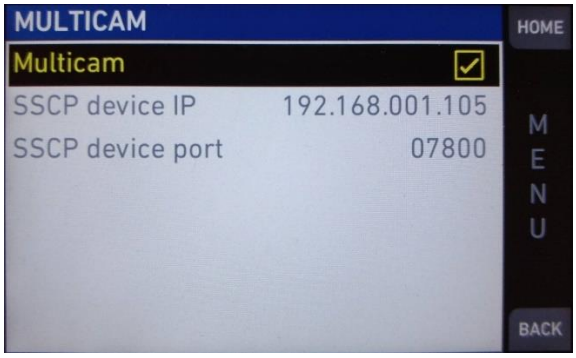
Main Menu > System



Then Select Multicam sub menu

System > Multicam



Then check the tick box. Multicam mode is now enabled.

Static IP Address:

When connecting devices using ethernet, each device must have its own unique IP address. On many network systems such as an office computer network, there is a server which identifies components on the network and automatically issues them with a unique IP address. This system however requires the user to enter IP addresses manually. The user must ensure all of the connected components have a unique address. This type of network connection is often referred to as Static IP. It is always best to pre-plan your network addresses especially if you are in a multicamera environment to ensure you do not duplicate IP addresses. Devices that need to communicate locally with each other, such as the AEON CC and the camera, need to be on the same IP range. A common IP range might be 192.168.1.xxx. Where xxx is changed between 001 and 254 to create a unique address for each device, for example the AEON CC or RXSM-E might have IP address 192.168.1.10 and the Arri camera might be 192.168.1.101

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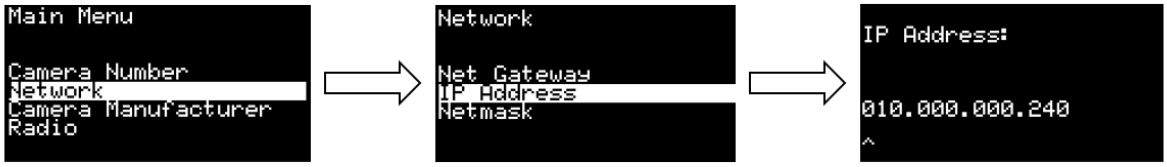
To enter a static IP address on the camera, please go back to the main menu:

MENU > SYSTEM > NETWORK / WIFI > LAN static IP.

To navigate the menus on the RXSM-E or AEON CC menu, Use the black navigation button, Left/Right/Up/Down and press for enter

To set the IP address on the RXSM-E or AEON CC:



Now on the Arri camera you need to go to the SSCP menu and set the SSCP device IP to be the IP address of the AEON-CC or RXSM-E Turn Multicam on and the ARRI should connect to the AEON-CC, this is indicated by the plug icon on the AEON-CC or RXSM-E status screen.

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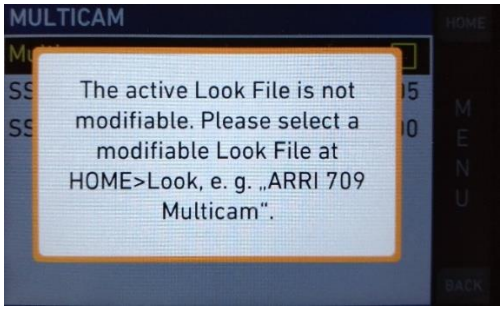
Troubleshooting

Issue:
Can't turn Multicam on in the ARRI camera



It is likely that you will be met with the above screen, informing you that the Look File currently selected does not permit this setting. Select a look file that does.

Solution:

From the home screen press the button under "LOOK"

Scroll and select a Look File that permits Multicam

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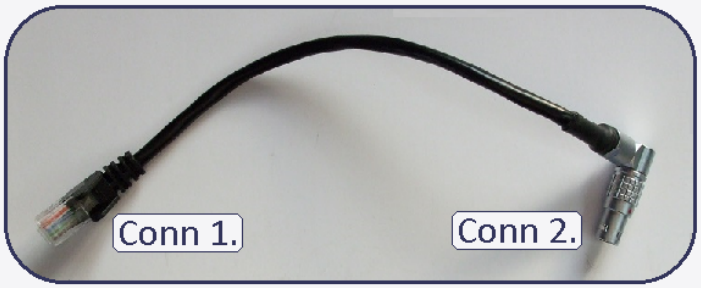
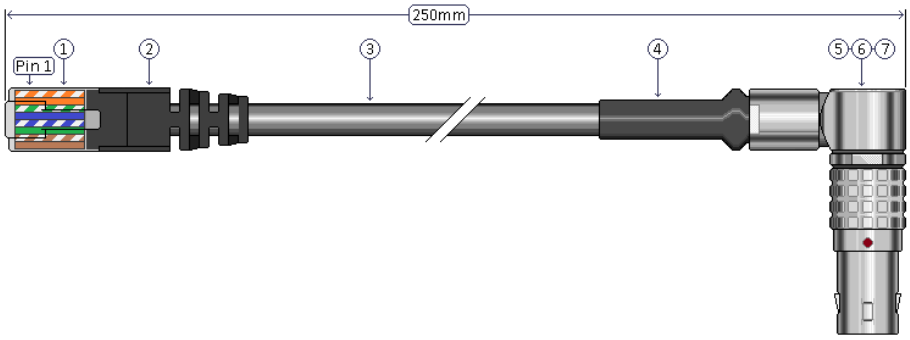
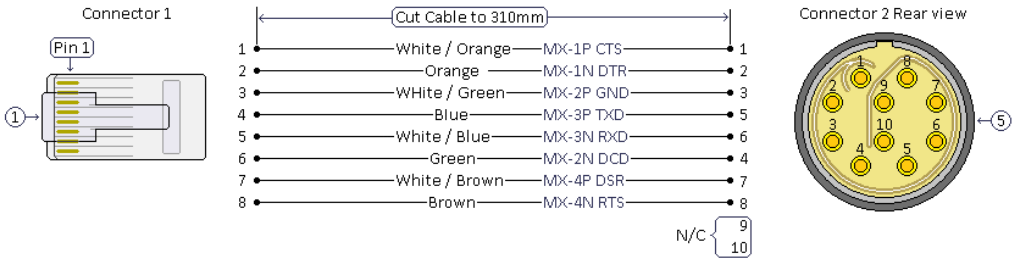
Cables

Arri Alexa Mini CCAM End Cable, 25Cm. Right Angle Lemo.







Item	Description	Qty	Supplier	Part No:	Location
1	Connector 1 = Plug, RJ-45, 8 way.	1		VNTB001	
2	Connector 1 Strain relief for RJ45 8 way Ethernet plug.	1	Farnell	728950	
3	Cable = CAT 5E Screened, Black.	1	CPC	CB14764	
4	Adhesive Lined Heatshrink sleeving 9.5 X 20mm, Black.	1	Farnell	1187637	
5	Connector 2 = Lemo FSG.1B.310.CLAD62Z.	1	Mouser	736-FSG1B310CLAD62Z	
6	Heatshrink sleeving 1.2 X 5mm, Black.	8	R.S.	433-0692	
7	Heatshrink sleeving 6.4 X 20mm, Black.	1		VBWA002	
	Drawing Revised 27-03-2018		Drawn By	F.D. 15-06-2017	

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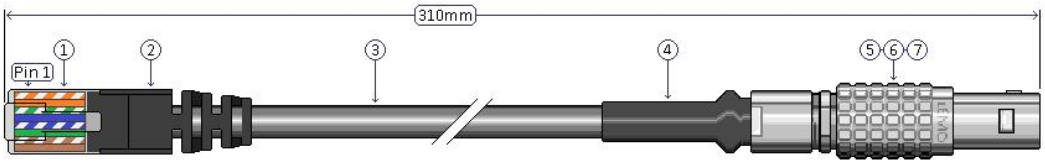
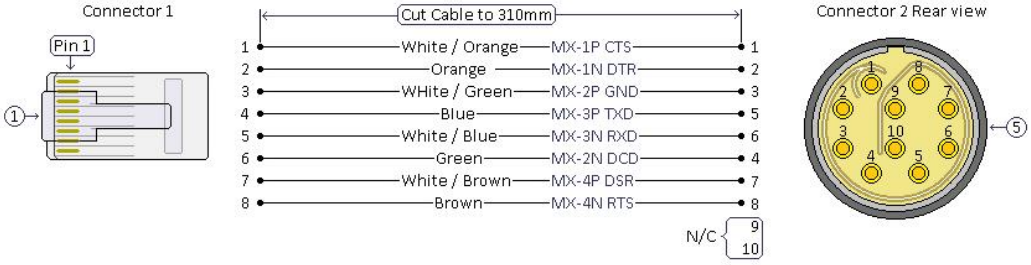
Arri Alexa Mini CCAM End Cable 300mm.





Item	Description	Qty	Supplier	Part No:	Location
1	Connector 1 = Plug, RJ-45, 8 way.	1		VNTB001	
2	Connector 1 Strain relief for RJ45 8 way Ethernet plug.	1	Farnell	728950	
3	Cable = CAT 5E Screened, Black.	1	CPC	CB14764	
4	Adhesive Lined Heatshrink sleeving 9.5 X 20mm, Black.	1	Farnell	1187637	
5	Connector 2 = Lemo FGG.1B.310.CLAD62Z.	1	Farnell	3817350	
6	Heatshrink sleeving 1.2 X 8mm, Black.	8	R.S.	433-0692	
7	Heatshrink sleeving 6.4 X 20mm, Black.	1		VBWA002	
	Drawing Revised 27-03-2018		Drawn By	F.D. 15-06-2017	

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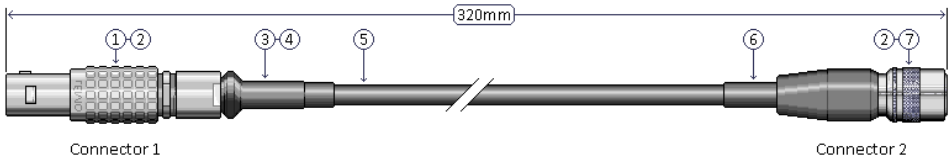
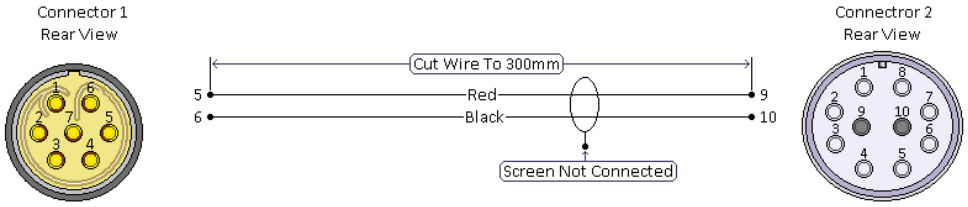
Arri Power Cable 300mm





Item	Description	Qty	Supplier	Part No:
1	Connector 1 = Lemo FGG.1B.307.CLAD62Z, 7 Way.	1	Farnell	3817337
2	Heatshrink Sleeving 1.6 X 8mm, Black.	4		VBWA006
3	Adhesive Lined Heatshrink Sleeving 6.4 X 20mm, Black.	1	Farnell	1187634
4	Adhesive Lined Heatshrink Sleeving 4.8 X 20mm, 4.8 X 15mm, Black.	2	Farnell	1187633
5	Cable = Belden 2 Core Screened, Black.	1	Farnell	1610271
6	Adhesive Lined Heatshrink Sleeving 4.8 X 30mm, 4.8 X 20mm, Black.	2	Farnell	1187633
7	Connector 2 = Hirose HR10A-10P-10S(73), 10 Way Female.	1		VNHB001
	Drawing Revised 17-10-2019		Drawn By	F.D. 16-06-2017

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