## **Multiview box II**

Art no. 0405100

## **Multiview box II Serial**

Art no. 0405110

# Quad box II 4cam in 1 mon out

Art no. 0405300

## Quad box II 1+3cam in 1 mon out Art no. 0405310

Art no. 0400010

User Manual No. UM0972191 A 02

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Art no. 0405100



Art no. 0405110



Art no. 0405300/0405310



## Multiview box II

Art no. 0405100

Multiview box II Serial Art no. 0405110

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Quad box II 1+3cam in 1 mon out

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## Introduction

Check with Orlaco which language versions are available. This manual contains user instructions. Used photographs and illustrations give general information and may differ from the products you use.

Contact your Orlaco dealer if you have questions, additional information, or want to make changes that are not described in this manual.

All data subject to change without notice. All dimensions are for commercial purpose only. The camera/display systems from Orlaco comply with the latest CE, ADR, EMC and mirror-directive regulations, where applicable. All products are manufactured in accordance with the ISO 9001 quality management system, ISO/TS 16949 quality automotive, ISO 14001 environmental management systems, where applicable.



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For specifications see Data sheets DS0963010-0405100 Multiview box II DS0963020-0405110 Multiview box II Serial DS0963080-0405300 Quad box II 4cam in 1 mon out DS0963081-0405310 Quad box II 1+3cam in 1 mon out



Art no. 0405100





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## 1. Introducing

This user manual describes the Orlaco Multiview box II and Quadbox II. Those are video view systems for up to 4 cameras PAL or NTSC.

Note: Use only PAL or NTSC cameras. You can not connect both PAL *and* NTSC cameras in one system together.

There are many possibilities of different split views in 5 selectable video channels. After the easy installations you've got an advanced video viewing image for various camera-system configurations.

## 2. Quad Service menu

Please first refer to the Orlaco Monitor User Manual for operating using and the external device configuration (Ext. device config) selection.

When the Ext. device config is selected you will see the Quad Service menu, see figure 1.





Note: To exit the Quad Service menu, press de Option button of for 3 seconds.

The 'Quad Service' menu offers the following possibilities: Channel mode, Camera settings, Camera tags, Startup mode, Advanced settings and Info. The following chapters will explain these possibilities.

## 3. Channel mode

The Orlaco Quad has five camera channels. For the first four channels you can select a default image layout or a customer image (chapter 6) layout. Channel five is always the quad layout, see figure 3.

## Refer to chapter 9 for a complete overview

Showing the channels: Press the camera button ( to switch between the channels.

Please refer to chapter 7 'Advanced settings' for customize your channel mode.

1	Quad Service menu	
1	Channel mode	NOR
	Camera settings	•
Ô	Camera tags	•
P	Startup mode	PAL
1	Advanced settings	•
	<b>.</b>	
0	ORLACO	
Figure	2	

Choose how the camera views should be shown. See figure 3.

NOR	NOR-mode:	full view
ALL	ALL-mode:	all view
DUA	DUA-mode:	dual view
TRI	TRI-mode:	1-2 top view
REA	REA-mode:	3-1 bottom view
D+R	D+R-mode:	dual inset top view
<b>SU1</b>	SU 1 mode:	surround view 1
SU2	SU 2 mode:	surround view 2





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## 4. Camera settings

This section describes image, tag and marker options.

## Note: The camera settings that have already been set from the monitor will be mixed by the camera settings which are set in the Multiview box II.

The 'Camera settings' menu offers the following possibilities for each camera (C1-C4), see figure 4.

	Camera setti	ngs		
		C1	C2	C3+
	Mirror			
œ	Upside down			
•=•	Tag hor. pos	10	10	10
•‡•	Tag ver. pos	10	10	10
1	Tag color	GRN	GRN	GRN
	-			
0	ORLACO			

Figure 4

## Mirror

Enable this option to mirror the image (left/right)

## Upside down

This option reverses the image (flips it upside down)

## Tag hor. pos

Adjust the horizontal position of the tag. (adjustable between 0-100)

## Tag ver. pos

Adjust the vertical position of the tag. (adjustable between 0-100)

## Tag color

Select the color in which the tag should be shown; (Black, Blue, White, Yellow, Magenta, Red, Cyan and Green).



## Hor. marker1

Enable this option to switch the marker on. The marker is displayed as a horizontal default green (color adjustable) line.

#### Marker pos.

Adjust the horizontal position of the marker. 0 is the top of the screen, 100 is the bottom of the screen.

## Marker col.

Adjust the color of the marker. Adjustable options:

GRN:	Green	BLU:	Blue
MAG:	Magenta	BLA:	Black
RED:	Red	WHI:	White
YEL:	Yellow	CYA:	Cyaan

#### Marker mix

Adjust the transparancy of the marker. (adjustable options: 0-, 25-, 50- or 100%)

## Hor. marker2

Enable this option to switch a second marker on. The marker is displayed as a horizontal default green (color adjustable) line.

The marker options are the same as the Hor. marker1.

#### Marker pos.

Adjust the horizontal position of the marker. 0 is the top of the screen, 100 is the bottom of the screen.



Figure 6

#### Marker col.

Adjust the color of the marker. Adjustable options:

			.ajaotao.
GRN:	Green	BLU:	Blue
MAG:	Magenta	BLA:	Black
RED:	Red	WHI:	White
YEL:	Yellow	CYA:	Cyaan

	Camera	setti	ngs		
	-		C1	C2	C3►
•#•	Marker	pos.	50	50	50
+#+	Marker	col.	GRN	GRN	GRN
•‡•	Marker	mix	100	100	100
$\square$	Ver. mo	arker2			
•#•	Marker	pos.	50	50	50
	-				
64	DOBLACC				

Figure 6a



## Marker mix

Adjust the transparancy of the marker. (adjustable options: 0-, 25-, 50- or 100%)

## Ver. marker1

Enable this option to switch the marker on. The marker is displayed as a vertical green (color adjustable) line. *The marker options are the same as the Hor. marker1.* 

## Ver. marker2

Enable this option to switch a second vertical marker on. The marker is displayed as a green (color adjustable) line.

The marker options are the same as the Hor. marker2.

## Brightness

Adjust the brightness of the image (adjustable between 0-100)

## Contrast

Adjust the contrast of the image. (adjustable between 0-100)

## Saturation

Adjust the saturation (color intensity) of the image. (adjustable between 0-100)



#### Figure 7

## 5. Startup mode

Choose the default output video mode (PAL, NTSC) when no camera is attached. See figure 8.



## 6. Camera tags

This section describes how to define the camera textlabels, see figure 9.

Ď	Camera	tags
1	[1	]
22	[2	]
4	[4	j
e	ORLACC	)
Figure	9	
0		
D.	Camera	tags
Ď	Camera	tags
1	Camera	tags ]
1 2	Camera [C	tags ] ]
1 1 2 3	Camera [C [2 [3	tags ] ]
1 1 1 1 1 1 1 1	Camera [C [2 [3 [4_	tags ] ] ]
1 2 3 4	Camera [C [2 [3 [4 ABCDEFC	tags ] ] ] ] HIJKLMNOPORST
1 2 3 4	Camera [2 [3 [4 ABCDEFC UVWXYZ	tags ] ] ] HIJKLMNOPQRST 0123456789-
1 2 3 4	Camera [2 [3 [4 AB DEFC UVWXYZ	tags ] ] ] HIJKLMNOPQRST 0123456789-

In this menu the text-labels for the camera inputs can be defined.

The number of the tags is depending on the camera switch option. (For more info please refer to the Orlaco Monitor User Manual.)

Select a camera and the option opens the camera tag editor menu. You can define each camera a name. (max. 6 characters), see figure 10

## 7. Advanced settings

# Note: This option shows a menu of settings that rarely need adjustment and are better left to qualified technicians.

This chapter describes the advanced settings of language selection, factory default resetting, channel settings, Switchwire settings, Communication settings, Sequencer settings, Communications settings, OSD settings and boundary settings, see figures 11 and 12.



## 7.1. Language

This option opens the language selection menu. See figure 13. The selected language will be used for all OSD menus. The OSD menu is available in English, Dutch, German, French, Czech, Hungarian, Italian, Polish, Portuguese, Spanish, Turkish, Swedish, Finnish, Danish and Norwegian.



## 7.2. Default settings Select defaults

See figure 14. This option opens the factory defaults menu. Choose the number of the desired factory settings (11 default settings, 1 = standard Orlaco).

## **Restore defaults**

See figure 14. If the option 'restore defaults' is selected, the factory settings will be reset. **Warning**: All user settings will be lost when factory defaults are reset.

## 7.3. Channel settings

1	Cho	annel	sett	tings	5	
∿10÷0	W1 W1 W1 W1	on/of Camer prior size hor.	ff ra rity pos.	CH1 C1 NOR 1/1 0	CH2 C2 NOR 1/1 0	CH3► C3 NOR 1/1 0
60	€ OF	REACO				
Figure	15					
1	Cho	annel	sett	ing	5	
⊕∿îî≁⊕	W1 W2 W2 W2 W2 W2 W2 W2 W2 W2 W2 W2 W2 W2	↓ on/or Came prio size	pos ff ra rity	CH1 C2 NOR 1/1	CH2 CH2 C2 NOR 1/1	CH3► 0 C2 NOR 1/1
100	-					
2.2	9 OF	LACO				

Figure 16

The channel settings can be modified. Per channel (CH1-CH9) you can choose a window (W1-W4 and define per window which camera (C1-C4) is shown, see figures 15, 16.

## W1 on/off

When enabled the window is displayed.

## W1 Camera

Select here which camera (C1-C4) should be shown in this window.

## W1 priority

Select the window priority, see figure 17. LOW: lower window NOR: middle window HI: upper window

Note: There's only one priority high- and one priority low possible. Make sure that the priority normals do not overlap each other.



image HI image NOR	
	image LOW

Figure 17

## W1 size

Select the size of the window, see figure 18. Adjustable options:

Fig. A. 1/1, 3/4, 2/3, 1/2, 1/3, 1/4, 1/5, 1/6, 3/4, 2/3, 1/2. Fig. B. 34W, 23W, 12W, 13W, 14W, 15W, 16W. Fig. C. 34H, 12H, 13H, 14H, 15H, 16H.



#### W1 hor. pos.

Determine the window top left horizontal position. (adjustable between 0-100)

## W1 ver. pos.

Determine the window top left vertical position. (adjustable between 0-100)

## 7.4. Switchwire settings

See figure 19.

These settings are used in other (special) products from Orlaco and have no function in this configuration. Please do not change the settings.



## 7.5. Sequencer settings

See figures 20, 21.

1	Sequencer settings	
2	Auto sequencer mode	OFF
1	Set sequence timer	3 s
1	Auto sequence range	1-5
1	Sequence skip blank	
1	Man sequence range	1-5
	-	
6	ORLACO	

Figure 20

Auto sequencer mode; select how the sequencer will step through the channels when running in automatic mode. OFF/FWDforward)/BWD(backward).

**Set sequencer timer;** Set the sequencer interval time from 0,5 to 5 seconds

Auto sequence range; Set the range of channels that the sequencer will use when in automatic mode. 1-2 to 1-9.

Sequence skip blank; When checked, the automatic sequencer will skip channels where the window 1 has no video signal.

**Man sequence range**; Set the range of channels that the sequencer will use when in manual mode. 1-2 to 1-9.

Sequence skip blank; when checked, the manual controlled sequencer will skip channels where the window 1 has no video signal





Figure 21

Sequencer power up; Select wether the sequencer starts in auto or manual mode after power-up.

Manual mode is only function in other (special) products from Orlaco and can not be selected in this configuration.

## 7.6. Comm. settings

See figure 22

These settings are for internal Orlaco use only and have no function with the orlaco Serial monitor. Please do not change the settings.

1	Comm.	settings	
-	-		2.2.2
15	Comm.	interface	232
2	RS232	protocol	VIS
2	RS232	speed	96
0	ORLAC	:0	
<b>Figure</b>	00		

Figure 22

## 7.7. OSD settings

See figure 23



## Menu horizontal pos

Adjust the horizontal position of the menu. 1 is left up and 16 is right up.

## Menu vertical pos

Adjust the vertical position of the menu. 1 is top of screen and 8 is bottom.

## 7.8. Boundary settings

See figure 24



## Boundary on/off:

Turn boundary around video channel on or off.

## Boundary color:

Adjust the color of the boundary. Adjustable options:

Blue

Black

White

GRN:	Green	BLU:
MAG:	Magenta	BLA:
RED:	Red	WHI:

#### YEL: Yellow CYA: Cvaan

**Boundary blink:** 

Choose wether the boundary should blink or not.

## Boundary blink color:

Adjust the color of the boundary blink. Adjustable options:

GRN:	Green	BLU:	Blue
MAG:	Magenta	BLA:	Black
RED:	Red	WHI:	White
YEL:	Yellow	CYA:	Cyaan

## 8. Info

See figure 25. This option shows Orlaco Multiview box II information. Check in this screen your software version which is described in this manual.



Figure 25



## 9. Channel mode overview



Version details
Version R1-0. First issue, 8/2016.
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Version A 02. Figure 3, page 3 changed, 8/2017.



## ORLACO

Orlaco is a Manufacturing company that specializes in making cameras and monitor systems for commercial vehicles, fork-lift trucks, cranes, off shore and maritime.

Our objective is to design and produce camera systems for the professional market that improve the drivers view and increase operating efficiency.

At our factory in Barneveld, we have a production department, warehouse, design department, service department and showroom.

Vision is our mission®, and Orlaco therefore deploys the development, manufacture, supply and service of camera and display systems that will improve safety and efficiency of all vehicles, machinery and vessels. Our systems give the end user a view on each blind spot and create comfort and improved working conditions. Our active approach will support market demands and innovations and will lead to enthusiastic ambassadors in the market; our Customers.

For more information: www.orlaco.com







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