# Multiview box

Art no. 0404110

# **Multiview box Serial**

Art no. 0404120

User Manual No. UM0972190 R2-0

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## **User Manual**

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If you have any questions or issues concerning the operation of this equipment, consult the relevant section in the manual or contact the Orlaco Products BV Service department.

The camera and monitor systems from Orlaco comply with the latest CE, ADR, EMC and mirror-directive regulations. All products are manufactured in accordance with the ISO 9001 quality management, ISO/TS16949 quality automotive and ISO 14001 environmental management.



For specifications see Data sheets DS0404110 Multiview box DS0404120 Multiview box Serial





#### 1. Introducing

This user manual describes the Orlaco Multiview box. Orlaco Multiview box is a video view system 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.

1	Quad Service menu	
🔧 ũ ũ <mark>🌾</mark>	Channel mode Camera settings Camera tags Advanced settings Info	NOR
0	ORLACO	
Figure	1	

Note: To exit the Quad Service menu, press de Option button (7) for 3 seconds.

The 'Quad Service' menu offers the following possibilities: **Channel mode**, **Camera settings**, **Camera tags**, **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 2.



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

Options for channel 1-4:



#### Refer to chapter 8 for a complete overview

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

Please refer to chapter 6 'Advanced channels' for customize your channel mode.



#### 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.

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

	Camera	setti	ngs		
			<b>C1</b>	C2	C3•
	Mirror				
Œ	Upside	down			
•‡•	Tag ho	r. pos	10	10	10
•	Tag ve	r. pos	10	10	10
1	Tag co	lor	GRN	GRN	GRN
	-				
6	ORLAC	C			

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, Cvan 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: BLA: Black Magenta RED: WHI: White Red YFI : Yellow CYA: Cvaan

#### 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.

	Camera	sett	ings		
	÷		<u>C1</u>	C2	C3+
·‡•	Marker	pos.	50	50	50
•=•	Marker	col.	GRN	GRN	GRN
•‡•	Marker	mix	100	100	100
100 E	Brightr	iess	50	50	50
Ð	Contras	st	50	50	50
	-				

#### CORLACO Figure 6

#### 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

	Camera	sett	ings		
			C1	C2	C3 •
· <b>÷</b> ·	Marker	col.	GRN	GRN	GRN
•	Marker	mix	100	100	100
÷	Brightr	iess	50	50	50
Ð	Contras	st	50	50	50
3	Saturat	ion	50	50	50
600	DODI ACC	· · · · · · · · · · · · · · · · · · ·			

Figure 7



#### Marker mix

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

#### 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)

#### 5. Camera tags

This section describes how to define the camera textlabels, see figure 8.



Figure 8

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 9



Figure 9

#### 6. 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, OSD setting and boundary settings, see figures 10, 11.

1	Advanced settings	
ç	Language	•
1	Default settings	•
4	Channel settings	٨
1	Switchwire settings	٠
1	Comm. settings	٨
	-	
-	ORLACO	
Figure	10	
104		
4	Advanced settings	
4	Advanced settings	
1	Advanced settings Channel settings	•
2.2	Advanced settings Channel settings Switchwire settings	:
444 A	Advanced settings Channel settings Switchwire settings Comm. settings	• • •
8444 A	Advanced settings Channel settings Switchwire settings Comm. settings OSD settings	
A SSSS	Advanced settings Channel settings Switchwire settings Comm. settings OSD settings Boundary settings	• • • •
A SASAS	Advanced settings Channel settings Switchwire settings Comm. settings OSD settings Boundary settings	* * * *
1 44444 V	Advanced settings Channel settings Switchwire settings Comm. settings OSD settings Boundary settings	• • • •

#### Language

This option opens the language selection menu. See figure 12. 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.

💬 Language	
English	2
Nederlands	
Deutsch	
Francais	
Cestina	0
-	
CO ORLACO	
F' 10	

Figure 12

#### **Default settings**



Figure 13

#### Select defaults

See figure 13. This option opens the factory defaults menu. Choose the number of the desired factory 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.

#### **Channel settings**

1	Cho	annel	sett	tings	5	
∿î3÷[]	W1 W1 W1 W1	on/of Camer prior size hor.	ff na nity pos	CH1 C1 NOR 1/1 0	CH2 C2 NOR 1/1 0	CH3► © C3 NOR 1/1 0
0	€ OF	RLACO				
Figure	214					
1	Cho	annel	sett	tings	5	
+01\$8		on/or came prior size	pos ff ra rity	CH1 CH1 C2 NOR 1/1	CH2 O C2 NOR 1/1	CH3► 0 C2 NOR 1/1
4 ⊕≹û3÷		ver. on/or Camer prior size	pos ff ra rity	CH1 CH1 C2 NOR 1/1	CH2 O C2 NOR 1/1	CH3► 0 C2 NOR 1/1

The channel settings can be modified. Per channel (CH1-CH5) you can choose a window (W1-W4 and define per window which camera (C1-C4) is shown, see figures 14, 15.

#### 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 16.

- 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.



#### W1 size

Select the size of the window, see figure 17. Adjustable options:

1/1, 3/4, 2/3, 1/2, 1/3, 1/4, 1/5, 1/6, 3/4, 2/3, 1/2



#### 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)



#### Switchwire settings

See figure 18

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



Figure 18

#### Comm. settings

See figure 19

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



Figure 19

#### **OSD** settings

See figure 20



#### 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.

#### **Boundary settings**

See figure 21

1	Boundary	settir	igs	
17	Boundary Boundary	on/off		WHI
24	Boundary Boundary	blink blink	colo	BLA
- 63	ORLACO			
Figure	21			

#### Boundary on/off

Turn boundary around video channel on er off.

#### **Boundary color**

Adjust the color of the boundary. Adjustable options:

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

#### **Boundary blink**

Choose wether the boundary should blink or not.

#### Boundary blink colo

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

#### 7. Info

See figure 22. This option shows Orlaco Multiview box information. Check in this screen your software version which is described in this manual.

① Info	
version:	1.2.0 (3247M)
date:	Jan 4 2013
gcc:	3.4.2
COD ODLAG	2
OKLAC	.0
Figure 22	

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### 8. Channel mode overview

>	Channel 1	> 0	Channel 2	>	Channel 3	>	Channel 4	>	Char (quad	nnel 5 1-mode)
NOR mode	1	2		:	3	4	1		1 3	2
	1	2	1	IL IT	3 1				1	2
ALL mode	2 3 4	_	3 4		2		2 3		3	4
DUA mode	1 2	2	3		3 4	ľ	4 1		1 3	2
TRI mode	1 2 3	2 4	3		3 4 1	4	1 2		1 3	2
REA mode	1 2	2	3		3 4	4	1		1 3	2
D+R mode	1 3 2	2	4 3		3 1 4	4	2 1		1 3	2
SU1 mode	3 2 1	4 3 1	2		1 4 3 2	2	1 4 3		1 3	2
SU2 mode	3 2 1	4	3 2 1	ſ	1 4 3 2	2	1 4 3		1 3	2



### 9. Version details

Version R1-0. First issue, 9/2010.
Version R1-1. Chapter 8; Channel mode overview added, 7/2012.
Version R1-2. Chapter 3; camera views added, Chapter 6 Advanced settings; settings added, 4/2013.
Version R2-0. Manual number changed, 7/2014



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### 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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