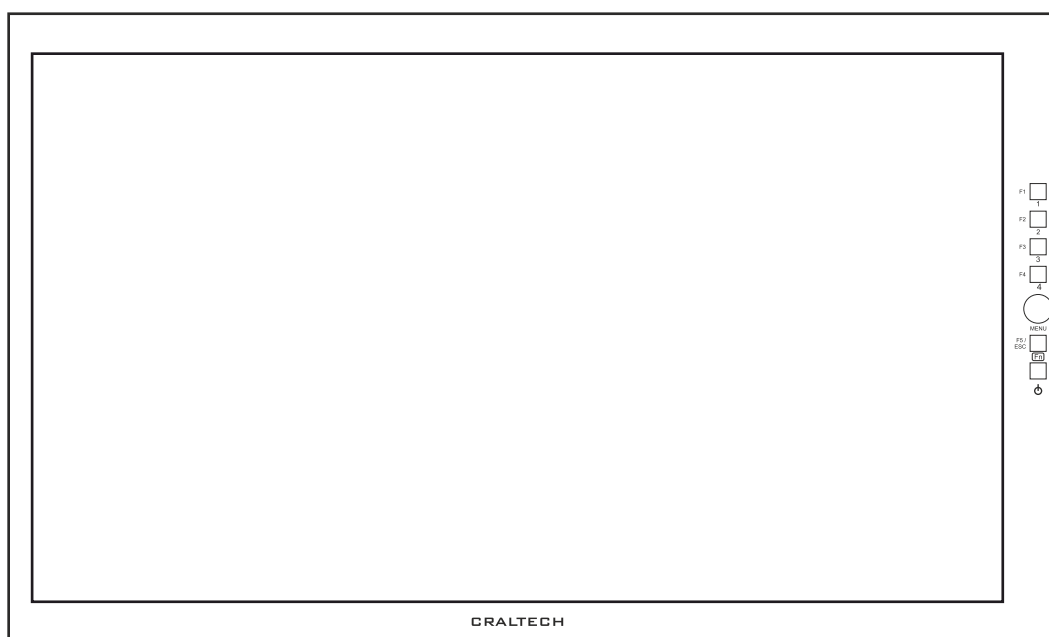


User Manual

CM215P12G

21,5" LCD Monitor

Version 1
Updated 12/11/2024



Please read this manual prior to installation and operation and save this manual for future reference.

CRALTECH
ELECTRONICA, S.L.

Thank You for Choosing Craltech technology

We expect you enjoy your choice.

Feel free to:

1. Contact us if you need support during configuration
2. Share your feedback, project pictures and your additional needs or desired features with us
3. Share your experience at social media using *#craltech*

Your opinion matters and is important!

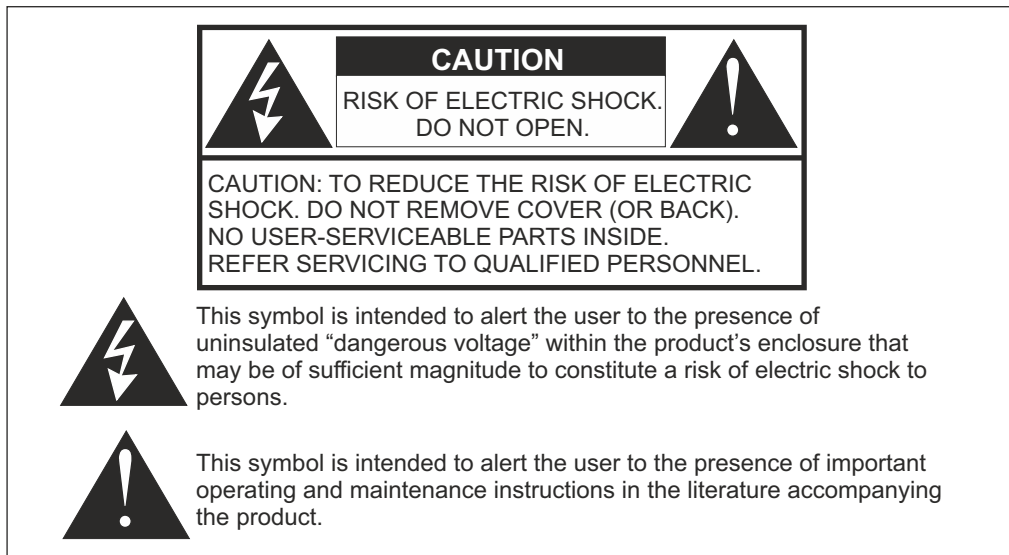
So if you want to suggest further features that could be included on the product or if anything at all with your craltech experience does not live up to your expectations be sure to reach out to us at *support@craltech.com*.

A stylized, handwritten signature in black ink that reads "Craltech Team". The script is fluid and cursive, with the word "Craltech" and "Team" written in a single, continuous line.

Laura Campoy
CEO, Craltech
craltech@craltech.com

IMPORTANT INFORMATION

WARNING: TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE



SAFETY INSTRUCTIONS

This product has been designed with the highest priority on safety, however, there are basic precautions that should be taken to avoid injury or damage.

- 1) Read, keep and follow all these instructions.
 - 2) Water and Moisture. Do not use this product near water and do not expose it to humidity. Keep the unit dry.
 - 3) Handle and operate this product with care, and do not expose the unit to vibrations.
 - 4) Clean only with dry cloth. Do not use liquid or aerosol cleaners to clean the product, and be sure not to spill liquid of any kind into it. Unplug the power cord before cleaning the product.
 - 5) Do not insert anything into or block the ventilation slots, you could get a shock or cause fire.
 - 6) Do not remove cover or back to reduce the risk of electric shock.
 - 7) Keep the product away from heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
 - 8) Only use accessories specified by the manufacturer.
 - 9) Power Sources: This product should be operated only from the type of power source indicated on the marking label. If you are not sure, check with your dealer or contact us for assistance.
 - 10) Unplug this apparatus during lightning storms or when unused for long periods of time.
 - 11) If any of the following occur, unplug the power cord and seek the assistance of a qualified service personnel for servicing:
 - Power cord or plug becomes damaged.
 - When any liquid is spilled on or in the product.
 - When the product has been exposed to water.
 - When the product does not operate properly as described in the instruction manual.
 - When the product has been damaged in any way.
 - 12) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way.
- If the product requires replacement parts, make sure that the service personnel uses replacement parts recommended by the manufacturer. Use of unauthorized parts can result in fire, electric shock, and other damage.

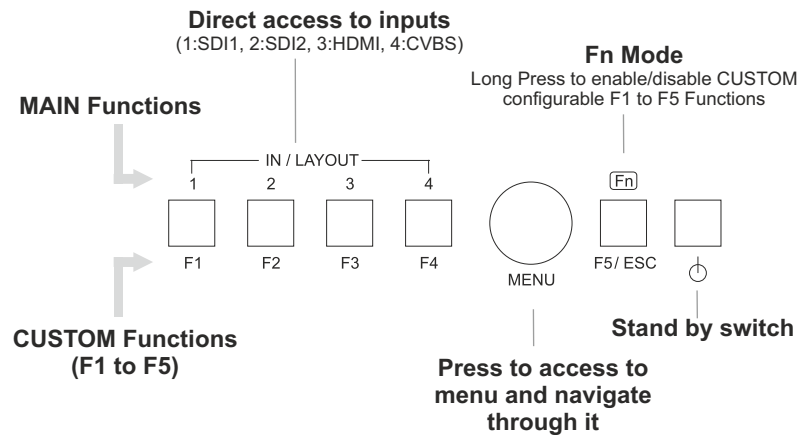
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CONTROLS AND CONNECTIONS

DOUBLE FUNCTIONALITY DIRECT KEYS

Direct Keys have double functionality. Main functions defined from factory and Custom F1 to F5 user configurable functions. To access to F1 to F5 function press (long press) **Fn** key until lights and select the function. To return to Main functions press (long press) **Fn** key until stops lighting.



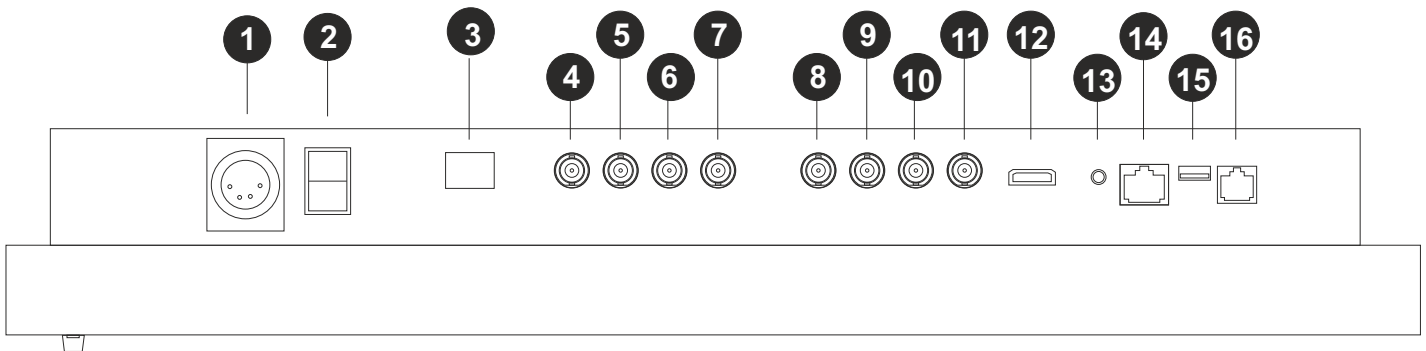
How to locate a Function in a F1 to F5 direct key?

To locate a function in F1 to F5 direct keys, select the function in the menu (function marked in white) and press the key where the function must be located (F1 to F5) until it flashes.

USER Mode must be selected in **SYSTEM / Fn Keys** Mode in OSD Menu, in order to be able to configure and select custom Functions.

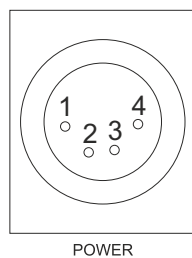
CONTROLS AND CONNECTIONS

REAR CONNECTORS



- | | |
|-----------------------------|--|
| 1. Power supply: 12V DC | 9. 3G/HD/SD-SDI Input |
| 2. Power ON | 10. 3G/HD/SD-SDI IN / Output |
| 3. SFP SLOT | 11. 3G/HD/SD-SDI Input |
| 4. 12G/HD/SD-SDI Output | 7. HDMI Input (Not HDCP support) |
| 5. 12G/HD/SD-SDI Input | 8. Audio Out |
| 6. 12G/HD/SD-SDI Output | 9. Ethernet connector for remote control |
| 7. 12G/HD/SD-SDI Input | 10. USB connector for updates |
| 8. 3G/HD/SD-SDI IN / Output | 11. RJ11: RS-422, RS-485 and Tally |

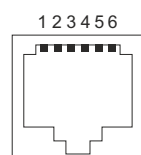
12V DC IN SOCKET



- 1. GND
- 2. NC
- 3. NC
- 4. 12V

RJ-11 REMOTE CONTROL TSL and GPIO CONNECTOR

Used for RS-232. Only one equipment can be controlled.



- PIN 1: RS-232 Out
- PIN 2: RS-232 In
- PIN 3: RS-485 +
- PIN 4: RS-485 -
- PIN 5: GND
- PIN 6: GND

ON SCREEN MENU

- **IMAGE:** Brightness / Contrast / Saturation / Gamma Correction / RGB Channel / Sharpness
- **COLOR:** Gamut / DIT Luts / Color Temperature / Gain RGB / Bias RGB
- **AUDIO:** Select an input / Meters Mode / Meters Channels / Meters x/y Position / Meters Size / Transparency / Yellow Level / Red Level / Speakers / Speakers/Jack In / Speakers Channel / Volume
- **MARKERS:** Select an Input / Center Marker / Security Area / Markers / Marker H/V / Markers Color / Curtain
- **SCOPES:** Select an Input / Waveform / WFM Mode / WFM x/y Position / WFM Size / Vectorscope / VS x/y Position / VS Size / Transparency
- **INPUT:** Select an Input / UMD / Aspect Ratio / Data Conversion / Hide Image / ATC Timecode / Image Size / Image x/y Position /
- **DISPLAY:** Layout / Pixel to Pixel 1:1 / Format Info / Border Color / UMDs Color / Focus Assist / FA Color / FA level / False Color / Y Exposure Check / Y Range Max / Y Max Color / Y Range Min / Y Min Color
- **IN/OUT** HDMI on input 4 / BNC 2 loop / BNC 4 Loop
- **ALARMS:** Alarm per Input / Video Black / Video Loss / Audio Loss / Silence select chan / Alarm Status / Video Black Mode / Video Black Color / Black Waiting time / Video Loss Mode / Video Loss Color / Audio Loss Mode / Audio Loss Color / Silence Waiting Time / Silence Level
- **NETWORK:** LAN IP / IP MASK / GATE IP / UDP PORT / Apply Config / Default Config
- **SYSTEM:** Backlight / Equipment ID / Encoder Sensitivity / Fn Keys Mode / Keys light / Tally UMD Source / Display On UMD / Display Squares / OSD Size / OSD x/y Position / OSD Transparency / Start Calibration / Display Data Conv / Factory Default / Update Firmware

IMAGE MENU

PLUMA By Craltech		
IMAGE	Brightness	15
COLOR	Contrast	15
AUDIO	Saturation	15
MARKERS	Gamma	2.2
SCOPES	RGB Channel	OFF
INPUT	Sharpness	00
DISPLAY		
IN/OUT		
ALARMS		
NETWORK		
SYSTEM		

1. Press Menu Encoder to access Menu. And use the Encoder to navigate through it.
3. Press Menu Encoder to select the adjustment to be modified (adjustment will be marked in white), and use the encoder to adjust the value. Press Menu Encoder again to Exit adjustment (adjustment will be marked in grey), and continue navigating.
4. Press **ESC** button to move back to main menu.

BRIGHTNESS, CONTRAST, SATURATION

Select the adjustment to be modified and use the Encoder up and down to modify value.

The scale of these adjustments is from 0 to 31, being 15 the value where no *Brightness* or *Contrast* or *Saturation* is applied to the image.

GAMMA CORRECTION

1. Select **Gamma Correction** adjustment and use the Encoder up and down to modify value. Values are: 1.00, 1.50, 2.00, 2.20, 2.35, 2.50. Default Gamma is 2.20.
2. Press **ESC** button to move back in menu

RGB CHANNEL

Select **RGB Channel** adjustment and use the Encoder up and down to modify value. Values are: OFF, Monochrome, Blue Only, Green Only, Red Only, Blue All, Green All, Red All, Invert.

SHARPNESS

Select **Sharpness** adjustment and press the encoder to enter. Use the Encoder up and down to modify value. Default value is 0.

COLOR MENU

PLUMA By Craltech		
IMAGE	Gamut	REC 709 2.4
COLOR	DIT Luts	LUT 01
AUDIO	Color Temperature	User
MARKERS	Gain Red	128
SCOPES	Gain Green	128
INPUT	Gain Blue	128
DISPLAY	Bias Red	064
IN/OUT	Bias Green	064
ALARMS	Bias Blue	064
NETWORK		
SYSTEM		

1. Select the **COLOR** menu and press the encoder to enter.
2. Press Menu Encoder to select the adjustment to be modified (adjustment will be marked in white), and use the encoder to adjust the value. Press Menu Encoder again to Exit adjustment (adjustment will be marked in grey), and continue navigating.
3. Press **ESC** button to move back to main menu.

Gamut: Select the colour space that you want to use (Values are Wide Gamut 2.2/2.4, REC 709 2.2/2.4/HLG/PQ/SLOG, EBU 2.2/.4, SMPTE-C 2.2/2.4, DCI P3)

DIT Luts: Select your own LUT (Upload them through USB Pendrive).

USER MODE: Custom adjustment for R, G and B Gain and Bias. Default value is 128 for R, G and B Gain, and 64 for R, G, B Bias.

ON SCREEN MENU

AUDIO MENU

PLUMA By Craltech		
IMAGE	Selected an input:	SDI1
COLOR	Meters Mode	OFF
AUDIO	Meters Channels	016
MARKERS	Meters x Position	004
SCOPES	Meters y Position	004
INPUT	Meters Size	Small
DISPLAY	Transparency	Min
IN/OUT	Yellow Level	-18dB
ALARMS	Red Level	-05dB
NETWORK	Speakers	OFF
SYSTEM	Speakers/Jack In	SDI1
	Speakers Channel	2
	Volume	63

1. Select the **AUDIO** menu and press the encoder to enter.
2. Press Menu Encoder to select the adjustment to be modified (adjustment will be marked in white), and use the encoder to adjust the value. Press Menu Encoder again to Exit adjustment (adjustment will be marked in grey), and continue navigating.
3. Press **ESC** button to move back to main menu.

SELECT AN INPUT

Used to select the the input which audio is going to be modified.

MODE

Used to select the audio level meters mode. Available different modes with Scale, No Scale, Pairs/Odds,...

1. Select **Meters Mode** adjustment and press the encoder to enter.
2. Use the Encoder up and down to select the mode.
3. Press Menu Encoder again to Exit adjustment.

METERS CHANNELS

Used to select the audio channels to be displayed in the Audio Level Meters.

1. Select **Meters Channels** adjustment and use the Encoder up and down to modify value. Values are: 2, 4, 6, 8, 12, 14 and 16 channels.
2. Press Menu Encoder again to Exit adjustment.

METERS x/y POSITION

Used to select position of Audio Level Meters. Audio Level Meters can be located anywhere on the window.

1. Select **Meters x/y Position** adjustment and use the Encoder up and down to modify value.
2. Press Menu Encoder again to Exit adjustment.

METERS SIZE

Used to select Audio Level Meters size. Values are: Small, Large

1. Select **Meters Size** adjustment and use the Encoder up and down to modify value.
2. Press Menu Encoder again to Exit adjustment.

YELLOW/RED LEVEL

Used to select Yellow / Red Level.

1. Select **Yellow/Red Level** adjustment and use the Encoder up and down to modify value.
2. Press Menu Encoder again to Exit adjustment.

SPEAKERS

Used to Enable/Disable the Speakers.

SPEAKERS/JACK IN

Used to select the Input (signal) of the audio output (Speakers and Phone Jack).

SPEAKERS CHANNEL

Used to select the audio channels (pair) of the audio output (Speakers and Phone Jack).

VOLUME

Used to adjust the audio volume of the audio output (Phone Jack and speakers).

ON SCREEN MENU

MARKERS MENU

PLUMA By Craltech		
IMAGE	Selected an input	SDI1
COLOR	Center Marker	OFF
AUDIO	Security Area	OFF
MARKERS ▶	Markers	OFF
SCOPES	Marker H	000
INPUT	Marker V	000
DISPLAY	Markers Color	White
IN/OUT	Courtain	OFF
ALARMS		
NETWORK		
SYSTEM		

1. Select the **MARKERS** menu and press the encoder to enter.
2. Press Menu Encoder to select the adjustment to be modified (adjustment will be marked in white), and use the encoder to adjust the value. Press Menu Encoder again to Exit adjustment (adjustment will be marked in grey), and continue navigating.
3. Press **ESC** button to move back to main menu.

SELECT AN INPUT

Used to select the the input which Markers are going to be modified.

CENTER MARKER

Used to enable/disable Center Marker.

1. Select **Center Marker** adjustment and press the encoder to enter.
2. Use the Encoder up and down to enable/disable.
3. Press Menu Encoder again to Exit adjustment.

SECURITY AREA

Used to enable/disable Security Area. Options: OFF, 80, 85, 88, 90, 93, 100.

1. Select **Security Area** adjustment and press the encoder to enter.
2. Use the Encoder up and down to modify value.
3. Press Menu Encoder again to Exit adjustment.

MARKER

Used to select the Marker. Options: OFF, 16:9, 4:3, 15:9, 14:9, 13:9, 1.85:1, 2.35:1, 1.85:1 and 4:3, User.

1. Select **Marker Status** adjustment and press the encoder to enter.
2. Use the Encoder up and down to modify value.
3. Press Menu Encoder again to Exit adjustment.

MARKER H/V

Select USER option at Markers Adjustment.

1. Select **Marker H/V** adjustment and press the encoder to enter.
2. Use the Encoder up and down to modify value.
3. Press Menu Encoder again to Exit adjustment.

MARKER COLOUR

1. Select **Marker Color** adjustment and press the encoder to enter.
2. Use the Encoder up and down to modify color.
3. Press Menu Encoder again to Exit adjustment.

COURTAIN

1. Select **Courtain** adjustment and press the encoder to enter.
2. Use the Encoder up and down to modify color.
3. Press Menu Encoder again to Exit adjustment.

ON SCREEN MENU

SCOPES MENU

PLUMA By Craltech		
IMAGE	Select an input	SDI1
COLOR	Waveform	OFF
AUDIO	WFM Mode	RGB
MARKERS	WFM x Position	000
SCOPES ▶	WFM y Position	255
INPUT	WFM Size	OFF
DISPLAY	Vectorscope	000
IN/OUT	VS x Position	000
ALARMS	VS y Position	255
NETWORK	VS Size	OFF
SYSTEM	Transparency	Medium

1. Select the **SCOPES** menu and press the encoder to enter.
2. Press Menu Encoder to select the adjustment to be modified (adjustment will be marked in white), and use the encoder to adjust the value. Press Menu Encoder again to Exit adjustment (adjustment will be marked in grey), and continue navigating.
3. Press **ESC** button to move back to main menu.

SELECT AN INPUT

Used to select the input which Scopes are going to be modified.

WAVEFORM

Used to enable/disable Waveform.

1. Select **Waveform** adjustment and press the encoder to enter.
2. Use the Encoder up and down to enable/disable.
3. Press Menu Encoder again to Exit adjustment.

WFM MODE

Used to select Waveform mode. Available modes are: RGB parade, R, G, B, YCbCr Parade, Y, Cb and Cr.

1. Select **Waveform Mode** adjustment and press the encoder to enter.
2. Use the Encoder up and down modify Waveform Mode.
3. Press Menu Encoder again to Exit adjustment.

WAVEFORM x/y POSITION

Used to select Waveform position. Waveform can be located anywhere in the window.

1. Select **Waveform x/y Position** adjustment and use the Encoder up and down to modify value.
2. Press Menu Encoder again to Exit adjustment.

WAVEFORM SIZE

Values are: Small, Large.

1. Select **Waveform Size** adjustment and press the encoder to enter.
2. Use the Encoder up and down to modify value.
3. Press Menu Encoder again to Exit adjustment.

VECTORSCOPE

Used to enable/disable Vectorscope.

1. Select **Vectorscope** adjustment and press the encoder to enter.
2. Use the Encoder up and down to enable/disable.
3. Press Menu Encoder again to Exit adjustment.

NOTE: Vectorscope graticules are adapted automatically to HD and SD if **Data Conversion** adjustment in **INPUT Menu** is set to AUTO. If REC 601 is selected, SD graticule is displayed, if REC 709 is selected HD graticule is displayed.

VECTORSCOPE x/y POSITION

Used to select Vectroscope position. Vectorscope can be located anywhere in the window.

1. Select **Vectorscope x/y** adjustment and use the Encoder up and down to modify value.
2. Press Menu Encoder again to Exit adjustment.

ON SCREEN MENU

VECTORSCOPE SIZE

Values are: Small, Large

1. Select **Vectorscope Zoom** adjustment and press the encoder to enter.
2. Use the Encoder up and down to modify value.
3. Press Menu Encoder again to Exit adjustment.

TRANSPARENCY

Used to select Transparency of the Waveform, Vectorscope and Audio Level Meters. Values are: OFF, Min, Medium, Max.

1. Select **Transparency** adjustment and press the encoder to enter.
2. Use the Encoder up and down modify value.
3. Press Menu Encoder again to Exit adjustment.

INPUT MENU

PLUMA By Craltech		
IMAGE	Select an Input	SDI1
COLOR	UMD	[UMD 1]
AUDIO	Display UMD	ON
MARKERS	UMD Size	Large
SCOPES	Aspect Ratio	16:9
INPUT	Data conversion	AUTO
DISPLAY	Hide Image	OFF
IN/OUT	ATC Timecode	OFF
ALARMS	Image Size	254
NETWORK	Image x/y Position	00
SYSTEM		

1. Select the **INPUT** menu and press the encoder to enter.
2. Press Menu Encoder to select the adjustment to be modified (adjustment will be marked in white), and use the encoder to adjust the value. Press Menu Encoder again to Exit adjustment (adjustment will be marked in grey), and continue navigating.
3. Press **ESC** button to move back to main menu.

SELECT AN INPUT

Used to select the Input which UMD,...is going to be modified.

UMD

16 character UMD per input.

1. Select the **Input NUMBER** to be modified and press the encoder to enter.
2. Use the Encoder up and down to modify value.
3. Press Menu Encoder again to Exit adjustment.

Display UMD

Display the UMD of the selected input

UMD Size

Select the size of the UMD (Normal or Large)

ASPECT RATIO

Used to select **Aspect Ratio**. Values are 4:3 and 16:9.

DATA CONVERSION

Data Conversion is used to select the mode of data conversion form YCbCr to RGB. Values are REC 601, REC 709 and AUTO. Default Value is AUTO. AUTO mode uses REC 601 data conversion for SD SDI inputs and REC 709 data conversion for HD SDI inputs.

HIDE IMAGE

Used to hide or display the image.

ATC TIMECODE

Used to Enable/Disable **ATC Timecode** Function.

IMAGE SIZE

Used to modify image size. Image Size can be modified in Full screen view and in Quad Mode.

IMAGE X/Y POSITION

Used to modify image position.

ON SCREEN MENU

DISPLAY MENU

PLUMA By Craltech		
IMAGE	Layout	3G01
COLOR	Pixel to Pixel 1:1	OFF
AUDIO	Format Info	OFF
MARKERS	Border Color	Grey 1
SCOPES	UMDs Color	Grey 1
INPUT	Focus Assist	OFF
DISPLAY ▶	FA Color	Red
IN/OUT	FA Level	040
ALARMS	False Color	OFF
NETWORK	Y Exposure Check	OFF
SYSTEM	Y Range Max	940
	Y Max Color	Magenta
	Y Range Min	064
	Y Min Color	Blue
	Fast Mode	ON

1. Select the **DISPLAY** menu and press the encoder to enter.
2. Press Menu Encoder to select the adjustment to be modified (adjustment will be marked in white), and use the encoder to adjust the value. Press Menu Encoder again to Exit adjustment (adjustment will be marked in grey), and continue navigating.
3. Press **ESC** button to move back to main menu.

LAYOUT

Used to select a screen layout. Options are: Quad View, SDI1, SDI2, HDMI, CVBS, PaP

PIXEL TO PIXEL 1:1

Used to Enable/Disable 1:1 Function.

FORMAT INFO

Used to Enable/Disable visualization of source's format information (resolution). This information will be displayed in right-up corner of the image.

BORDER COLOR

Used to select color of Border/Frame of the image in Quad View.

UMD COLOR

Used to select UMD color

FOCUS ASSIST

Used to Enable/Disable Focus Assist Function. FA color can be modified using FA Color Function. Intensity of FA can be modified using FA Level Adjustment.

FALSE COLOR

Used to Enable/Disable False Color Function.

Y EXPOSURE CHECK

Used to Enable/Disable Y Exposure Check Function. Maximum and Minimum range can be modified using Y Range Max and Y Range Min, and color for Underexposure and Overexposure can be modified.

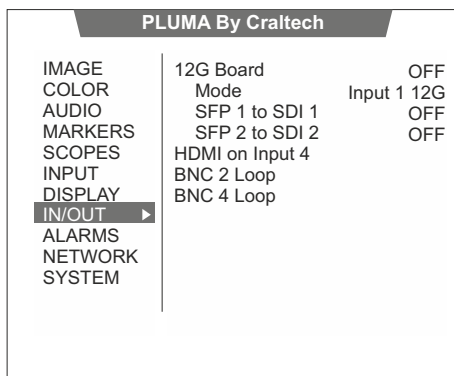
FAST MODE

If FAST MODE is ON the image is displayed as full interlaced so a bit of flickering can be appreciated but the refresh on the image is faster (Best option for sports)

If FAST MODE is OFF the scan is turned into "PROGRESSIVE SCAN" that will remove the flickering.

ON SCREEN MENU

IN/OUT MENU



1. Select the **IN/OUT** menu and press the encoder to enter.
2. Press Menu Encoder to select the adjustment to be modified (adjustment will be marked in white), and use the encoder to adjust the value. Press Menu Encoder again to Exit adjustment (adjustment will be marked in grey), and continue navigating.
3. Press **ESC** button to move back to main menu.

12G Board

This function activates the 12G board using the configurations above (Either to use 12G inputs or SFP inputs)
Options are ON / OFF

Mode

Select which input you want to multiplex on your monitor. Options are: Input 1 12G, Input 2 12G

6GSDI ONLY WORKS ON INPUT 2 of the 12GSDI BOARD.

SFP1 TO SDI1 (Multiplex input 1 of the 12G board)

This function activates input 1 of SFP Module. This input will be multiplexed with SDI 1 of the monitor.

SFP2 TO SDI2 (Multiplex input 1 of the 12G board)

This function activates input 2 of SFP Module. This input will be multiplexed with SDI 2 of the monitor.

HDMI on Input 4

This function activates HDMI on the windows 4. This input will be multiplexed with SDI 4 of the monitor.

BNC 2 Loop

This function activates Loop of input 1 on BNC 2 input. This input will be multiplexed with SDI 2 of the monitor.

BNC 4 Loop

This function activates Loop of input 3 on BNC 4 input. This input will be multiplexed with SDI 3 of the monitor.

ON SCREEN MENU

ALARMS MENU

PLUMA By Craltech		
IMAGE	Alarm per input	01
COLOR	Video Black	OFF
AUDIO	Video Loss	OFF
MARKERS	Audio Loss	OFF
SCOPES	Silence select chan	01
INPUT	Alarm Status	OFF
DISPLAY	Video Black Mode	OFF
IN/OUT	Video Black Color	Black
ALARMS	Black Waiting time	00s
NETWORK	Video Loss Mode	OFF
SYSTEM	Video Loss Color	Black
	Audio Loss Mode	OFF
	Audio Loss Color	Black
	Silence Waiting Time	00s
	Silence Level	-60dB

1. Select the **ALARMS** menu and press the encoder to enter.
2. Press Menu Encoder to select the adjustment to be modified (adjustment will be marked in white), and use the encoder to adjust the value. Press Menu Encoder again to Exit adjustment (adjustment will be marked in grey), and continue navigating.
3. Press **ESC** button to move back to main menu.

Video Black, Video Loss and Audio Loss Alarms can be activated “Per Input” or “ALL” inputs.

To activate alarms per inputs, use the “**Alarm per input**” selector at the top of Alarm menu, and select the input which alarm is going to be activated or modified. Then select the alarm to be activated. Then select “**Per Input**” option at “**Video Black Mode**”, “**Video Loss Mode**” “**Audio Loss Mode**” adjustment.

To activate alarm in all inputs, select “**All**” option at “**Video Black Mode**”, “**Video Loss Mode**” “**Audio Loss Mode**” adjustment. Silence alarm only can be activated per input.

SELECTED INPUT

Used to select the the input which Alarms are going to be modified.

VIDEO BLACK

Used to Enable/Disable Video Black Alarm per input. This alarm will be only active in the input selected in “Alarm per input”.

VIDEO LOSS

Used to Enable/Disable Video Loss Alarm per input. This alarm will be only active in the input selected in “Alarm per input”.

AUDIO LOSS

Used to Enable/Disable Audio Loss Alarm per input. This alarm will be only active in the input selected in “Alarm per input”.

SILENCE SELECT CHAN

Used to select the audio channel for Silence Alarm. Options are: 01, 02, 03,...16. This option does not activate the Silence Alarm, that must be activated using “**Alarm Status**”. This alarm will be only active in the input selected in “Alarm per input”. This alarm will be indicated on screen with a SILENCE text at the right-top of the image and the channel blinking in grey.

VIDEO BLACK MODE

Video Black Alarm can be activated per input or for ALL inputs. Video Black Mode values are: Per Input, ALL and OFF.

- Select **ALL** to activate Video Black Alarm in all the inputs.
- Select **OFF** to disable Video Black Alarm in all the inputs.
- Select **Per Input** to activate Video Black Alarm using **Alarm per input**.

ON SCREEN MENU

VIDEO BLACK COLOR

Used to select Video Black alarm color.

BLACK WAITING TIME

Used to select Video Black alarm waiting time (period before the alarms is activated). Values form 0 to 60s.

VIDEO LOSS MODE

Video Loss Mode alarm can be activated per input or for ALL inputs. Video Loss Mode values are: Per Input, ALL and OFF.

- Select **ALL** to activate Video Loss Alarm in all the inputs.
- Select **OFF** to disable Video Loss Alarm in all the inputs.
- Select **Per Input** to activate Video Loss Alarm using *Alarm per input*.

VIDEO LOSS COLOR

Used to select Video Loss alarm color.

AUDIO LOSS MODE

Audio Loss Mode alarm can be activated per input or for ALL inputs. Video Loss Mode values are: Per Input, ALL and OFF.

- Select **ALL** to activate Audio Loss Alarm in all the inputs.
- Select **OFF** to disable Audio Loss Alarm in all the inputs.
- Select **Per Input** to activate Audio Loss Alarm using *Alarm per input*.

AUDIO LOSS COLOR

Used to select Audio Loss alarm color.

SILENCE WAITING TIME

1. Select ***Silence Waiting Time*** adjustment and press the encoder to enter.
2. Use the Encoder up and down to modify value (form 0 to 60s).
3. Press Menu Encoder again to Exit adjustment.

SILENCE LEVEL

1. Select ***Silence Level*** adjustment and press the encoder to enter.
2. Use the Encoder up and down to modify value (form -60 to 0dBFS).
3. Press Menu Encoder again to Exit adjustment.

ON SCREEN MENU

NETWORK MENU

PLUMA By Craltech		
IMAGE	LAN IP	127.000.000.002
COLOR	IP MASK	255.255.255.000
AUDIO	GATE IP	127.000.000.001
MARKERS	SOFT IP	127.000.000.003
SCOPES	SOFT PORT	20002
INPUT	UDP PORT	01030
DISPLAY	UPDATE IP	127.000.000.004
IN/OUT	UPDATE PORT	20001
ALARMS	Apply Config	NO
NETWORK ▶	Default Config	NO
SYSTEM		

1. Select the **NETWORK** menu and press the encoder to enter.
2. Press Menu Encoder to select the adjustment to be modified (adjustment will be marked in white), and use the encoder to adjust the value. Press Menu Encoder again to Exit adjustment (adjustment will be marked in grey), and continue navigating.
3. Press **ESC** button to move back to main menu.

LAN IP

This option is used to modify LAN IP.

1. Select **LAN IP** adjustment and press the encoder to enter.
2. Use the Encoder up and down to modify values.
3. To apply the new Network configuration Select "Yes" at Apply Config in Network Menu, and unplug (not stand by) the equipment, then switch ON the equipment to start with new configuration.

IP MASK

This option is used to modify IP MASK.

1. Select **IP MASK** adjustment and press the encoder to enter.
2. Use the Encoder up and down to modify values.
3. To apply the new Network configuration Select "Yes" at Apply Config in Network Menu, and unplug (not stand by) the equipment, then switch ON the equipment to start with new configuration.

GATE IP

This option is used to modify GATE IP. GATE IP is the router LAN IP.

1. Select **GATE IP** adjustment and press the encoder to enter.
2. Use the Encoder up and down to modify values.
3. To apply the new Network configuration Select "Yes" at Apply Config in Network Menu, and unplug (not stand by) the equipment, then switch ON the equipment to start with new configuration.

SOFT IP and PORT

This option is used to modify SOFT IP. (For connecting with Light illusion software to create 3D LUT tables)

1. Select **SOFT IP** adjustment and press the encoder to enter.
2. Use the Encoder up and down to modify values.
3. To apply the new Network configuration Select "Yes" at Apply Config in Network Menu, and unplug (not stand by) the equipment, then switch ON the equipment to start with new configuration.

UDP PORT

This option is used to modify UDP PORT.

1. Select **UDP PORT** adjustment and press the encoder to enter.
2. Use the Encoder up and down to modify values.
3. To apply the new Network configuration Select "Yes" at Apply Config in Network Menu, and unplug (not stand by) the equipment.

UPDATE IP and PORT

This option is used to modify UPDATE IP. (For using our Soft4Boxes software to update the equipment)

1. Select **SOFT IP** adjustment and press the encoder to enter.
2. Use the Encoder up and down to modify values.
3. To apply the new Network configuration Select "Yes" at Apply Config in Network Menu, and unplug (not stand by) the equipment, then switch ON the equipment to start with new configuration.

Apply Config

This option is used to apply all the modifications/values of the Network Menu, so after modifying a value of any of the adjustments of the Network Menu select "Yes" at Apply Config and unplug (not stand by) the equipment to apply the new network configuration, then switch ON the equipment to start with new configuration.

Default Config

This option is used to set to default (factory settings) the monitor.

ON SCREEN MENU

SYSTEM MENU

PLUMA By Craltech		
IMAGE	Backlight	15
COLOR	Equipment ID	01
AUDIO	Encoder Sensitivity	IMAGE0
MARKERS	Fn Keys Mode	USER
SCOPES	Keys Light	ON
INPUT	Tally UMD Source	TSL
DISPLAY	Display on UMD	ON
IN/OUT	Display Squares	ON
ALARMS	OSD Size	Small
NETWORK	OSD x/y Position	00
SYSTEM ▶	OSD Transparency	00
	Start Calibration	No
	Display Data Conv	Rec709
	Factory Default	NO
	Update Firmware	NO

1. Select the **SYSTEM** menu and press the encoder to enter.
2. Press Menu Encoder to select the adjustment to be modified (adjustment will be marked in white), and use the encoder to adjust the value. Press Menu Encoder again to Exit adjustment (adjustment will be marked in grey), and continue navigating.
3. Press **ESC** button to move back to main menu.

BACKLIGHT

Used to adjust backlight value (form 0 to 15). The backlight brightness affect to LED Backlight and not to signal.

EQUIPMENT ID

Used to set Equipment ID to identify it for Ethernet communications.

For TSL, the equipment ID is the Offset on the first UMD and Tally that will be used.

For example: To control 2 equipments with 8 inputs, first equipment will have ID 01 and the second equipment will have ID 09.

ENCODER SENSITIVITY

Used to adjust sensitivity of the encoder.

Fn KEYS MODE

Used to configure direct keys. Values are: IMAGE, AUDIO, MARKERS, SCOPES, MULTI, LAYOUT, USER.

These options locate adjustments in direct keys. USER option is used to select customized the direct keys.

Customization of F1 to F11 direct keys explained in pag 3 of this manual.

KEYS LIGHT

Used to enable/disable Keys Light.

TALLY UMD SOURCE

Used to select Tally and UMD Source. Values are: GPIO, RS-232, TSL. Tally can be displayed on UMD and/or with squares at the bottom of the image.

OSD SIZE

Used to select OSD size. Values are: Small, Large

OSD x/y POSITION

Used to select OSD position.

OSD TRANSPARENCY

Used to select OSD Transparency.

START CALIBRATION

Connect the Monitor to Light illusion software to create a table of the monitor.

DISPLAY DATA CONV

Display Data Conversion is used to select the mode of data conversion form YCbCr to RGB for the display.

Values are REC 601, REC 709. Default Value is REC 709.

FACTORY DEFAULT

This option is used to reset the monitor. **NOTE: This option will set Equipment ID to 01 (Factory value).**

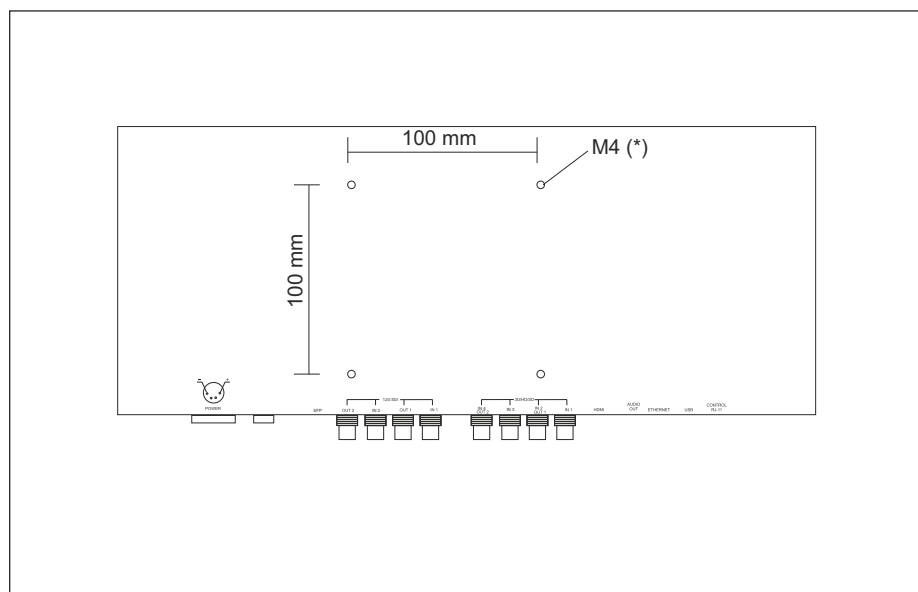
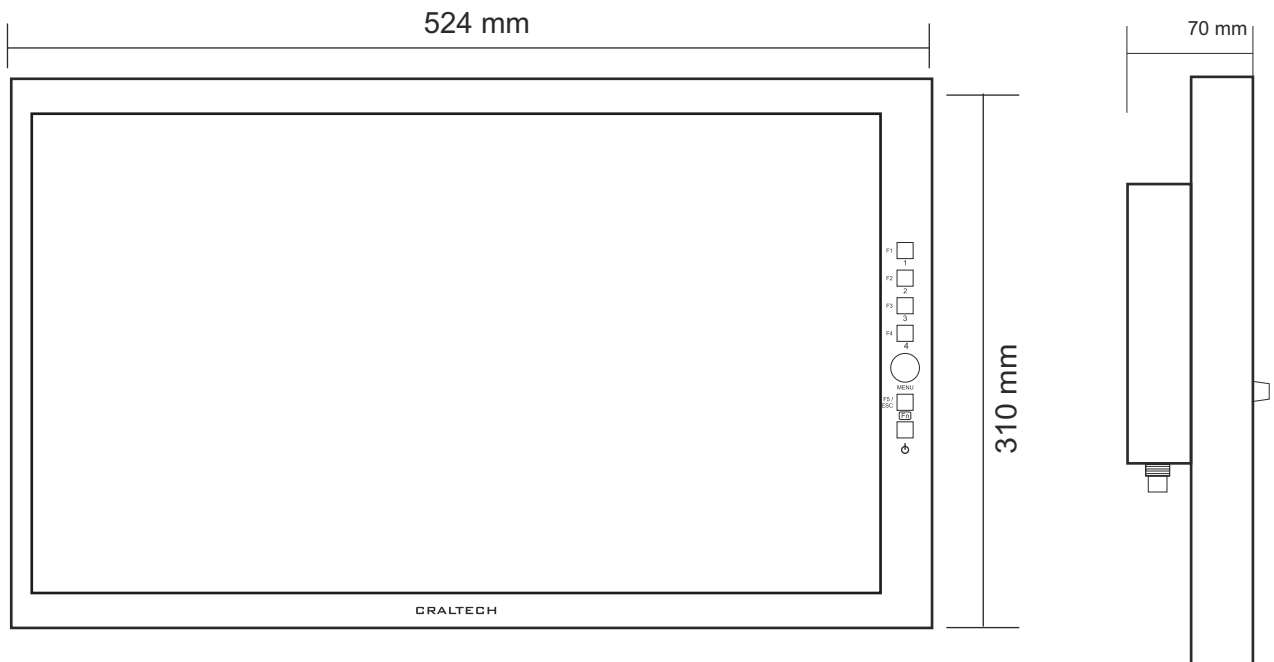
UPDATE FIRMWARE

Used to update the monitor.

SPECIFICATIONS

Display size	21,5" LED Backlight
Resolution	1920x1080
Pixel Pitch	-
Viewing angle	H 178, V 178
Brightness	1500 cd/m ²
Contrast	1000:1
Color	16.7M
SDI Inputs	4 x 3G/HD/SD-SDI inputs (4 x BNC) * 2 are configurable as loop through
SDI Input Formats	2160p(60/59.94/50/30/29.97/25/24/23.98) (on the 2 x 12GSDI inputs) 1080p (60 / 59.84 / 50 / 30/ 29.97 /25 / 24 / 23.98 / 25sF / 24sF/ 23.98sF) 1080i (60 / 59.94 / 50) 720p (60 / 59.94 / 50) 480i (59.94) 576i (50)
SDI Outputs	2 x 3G/HD/SD-SDI outputs (2 x BNC) 2 x 12GSDI Loop Through
HDMI Input	1 x HDMI (Not HDCP support)
HDMI Formats	2160p(60/59.94/50/30/29.97/25/24/23.98) (on the 2 x 12GSDI inputs) 1080p (60 / 59.84 / 50 / 30/ 29.97 /25 / 24 / 23.98 / 25sF / 24sF/ 23.98sF) 1080i (60 / 59.94 / 50) 720p (60 / 59.94 / 50) 480i (59.94) 576i (50)
Aspect Ratios	16.9, 4:3
Audio IN	Embedded Audio.16 Channel Audio Level Meter (SDI inputs)
Audio OUT	Analog Stereo (Phone Jack), 2 x Speakers 1,5W Stereo
UMD	16 characters (IMD) TSL comp.
Tally	Green and Red, TSL comp.
Waveform	Color waveform. YCbCr, Y, Cb, Cr, RGB, R, G,B
Vectorscope	Color Vectorscope
Remote control	Ethernet
Cabinet	Aluminium. Textured Black Powder Coat
Dimensions	524 x 310 x 70 mm
Power supply	12V DC (XLR Connector)
Power Consumption (Approx.)	40W
Operating temperature	5 °C a 40 °C
Accessories	AC215R: 19" Rack mounting kit AC215S: Stand

DIMENSIONS



(*) IMPORTANT:
Screws must not
exceed 8 mm depth
into cover.

