DDMTECH
DATEN · DISPLAYS & MORE

User Manual

LCD Monitor

PSIV-215-*

DDMTECH
DATEN · DISPLAYS & MORE

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Safety Precautions

| Warning | A serious or fatal injury may result if instructions are not followed carefully. |

| Caution | A damage of the product or personal injury may follow if instructions are not followed carefully. |

Cleaning

Warning

- For safety reasons, turn off the power switch and unplug the monitor before you clean it.
- If you drop any materials or liquids such as water into the monitor when cleaning, unplug the power cable immediately and contact your dealer or Portsignum GmbH.

Caution

- To protect the LCD panel or touch glass surface, do not scratch or rub the screen with a hard object
- Never use any of the following strong solvents. These will damage the screen or cabinet: Thinner, benzine, abrasive cleaner, spray-type cleaner, wax, acid or alkaline solvent.
- Do not spray liquid directly on the monitor.
- Cabinet: Stains can be removed with a cloth lightly moistened with a mild detergent solvent. Then wipe the cabinet with a soft dry cloth.
- Screen surface: Periodic cleaning with a soft dry cloth is recommended. Don't use tissue paper etc. because these will damage the screen surface.

Electrical safety

Warning

- Do not use a damaged power cord or AC/DC power adapter, or a loose power socket.
- Do not use multiple products with a single power socket.
- Do not touch the power plug with wet hands.
- Insert the power plug all the way in so it is not loose.
- Connect the AC/DC power adapter to a grounded power socket.
- Do not bend or pull the power cord with force.
- Do not leave the power cord or AC/DC power adapter under a heavy object.
- Do not place the product, power cord or AC/DC power adapter near heat sources.

- Do not disconnect the power cord while the product is used.
- Only use the AC/DC power adapter and power cord provided with your product, or an LPS power supply with CE/FCC marking.
- Keep the power socket where the power cord is connected unobstructed to cut off power immediately if an issue occurs.
- Hold the plug when disconnecting the power cord from the power socket.

Installation

- Do not place candles, insect repellents or cigarettes on top of the product.
- Do not install the product near heat sources.
- Do not install the product in poorly ventilated spaces such as a bookcase or closet.
- Keep the plastic packaging out of the reach of children. Children may suffocate.
- Do not install the product on an unstable or vibrating surface (insecure shelf, sloped surface, etc.). The product may fall and become damaged and/or cause an injury. Using the product in an area with excess vibration may damage the product or cause a fire.
- Do not install the product in a vehicle or a place exposed to dust, moisture (water drips, etc.), oil, or smoke.
- Do not expose the product to direct sunlight, heat, or a hot object such as a stove. The product lifespan may be reduced or a fire may result.
- Do not install the product within the reach of young children. The product may fall and injure children.
- Edible oil, such as soya bean oil, can damage or deform the product. Do not install the product in a kitchen or near a kitchen counter.

- Do not drop the product while moving.
- Do not set down the product on its front.
- When installing the product on a cabinet or shelf, make sure that the bottom edge of the front of the product is not protruding. The product may fall and become damaged and/or cause an injury. Install the product only on cabinets or shelves of the right size.
- Set down the product gently to prevent product failure or personal injury.
- Installing the product in an unusual place (a place exposed to a lot of fine dust, chemical substances, extreme temperatures or a significant presence of moisture, or a place where the product will operate continuously for an extended period of time) may seriously affect its performance. Be sure to consult your dealer or Portsignum GmbH if you want to install the product at such a place.
- Before assembling the product, place the product down on a flat and stable surface so that the screen is facing downwards.

Operation

Warning

- To move the product, first disconnect all the cables from it, including the power cable.

- If the product generates abnormal sounds, a burning smell or smoke, disconnect the power cord immediately and contact your dealer or Portsignum GmbH.

- Do not let children hang from the product or climb on top of it. Children may become injured or seriously harmed.

- If the product is dropped or the outer case is damaged, turn off the power and disconnect the power cord. Then contact your dealer or Portsignum GmbH. Continued use can result in a fire or electric shock.

- Do not leave heavy objects or items that children like (toys, sweets, etc.) on top of the product. The product or heavy objects may fall as children try to reach for the toys or sweets resulting in a serious injury.

- Do not drop objects on the product or apply impact.

- If a gas leakage is found, do not touch the product or power plug. Also, ventilate the area immediately.

- Do not use or keep combustible spray or an inflammable substance near the product.

- Ensure the vents are not blocked. An increased internal temperature may cause a fire.

- Do not insert metallic objects (chopsticks, coins, hairpins, etc.) or objects that burn easily (paper, matches, etc.) into the product (via the vent or input/output ports, etc.).

- Be sure to power off the product and disconnect the power cord when water or other foreign substances have entered the product. Then contact your dealer or Portsignum GmbH.

- Do not place objects containing liquid (vases, pots, bottles, etc.) or metallic objects on top of the product. Be sure to power off the product and disconnect the power cord when water or other foreign substances have entered the product. Then contact your dealer or Portsignum GmbH.

Caution

- Leaving the screen fixed on a stationary image for an extended period of time may cause after-image burn-in or defective pixels. Set the screen to power-saving mode or moving-picture screen saver when not using the product for an extended period of time.

- Disconnect the power cord from the power socket if you do not plan on using the product for an extended period of time (vacation, etc.).

- Dust accumulation combined with heat can cause a fire, electric shock or electric leakage.

- Use the product at the recommended resolution and frequency. Your eyesight may deteriorate.

- Do not put AC/DC adapters together.

- Remove the plastic bag from the AC/DC adapter before you use it.

- Do not let water enter the AC/DC adapter device or get the device wet. An electric shock or fire may result. Avoid using the product outdoors where it can be exposed to rain or snow. Be careful not to get the AC/DC adapter wet when you wash the floor.

- Do not put the AC/DC adapter near to any heating apparatus. Otherwise, a fire may result.

- If you place the AC/DC power adapter hanging with the cord input facing upwards, water or other foreign substances could enter the Adapter and cause the Adapter to malfunction. Make sure to rest the AC/DC power adapter flat on a table or the floor.

- Do not hold the product upside-down or move it by holding the stand. The product may fall and become damaged or cause an injury.

- Looking at the screen too close for an extended period of time can deteriorate your eyesight.

- Do not use humidifiers or stoves around the product.

- Rest your eyes for more than 5 minutes or look at distance objects for every 1 hour of product use.

- Store small accessories out of the reach of children.

Installation

VESA Wall Mount Specifications

Install your wall mount on a solid wall perpendicular to the floor. If you install the product on a slanted wall, it may fall and result in severe personal injury.

- Do not use screws that are longer than shown in the table below. Screws that are too long may cause damage to the inside of the product.
- For wall mounts that do not comply with the VESA standard screw specifications, the length of the screws may differ depending on the wall mount specifications.
- Do not fasten the screws too firmly. This may damage the product or cause the product to fall, leading to personal injury. Portsignum GmbH is not liable for these kinds of accidents.
- Portsignum GmbH is not liable for product damage or personal injury when a non-VESA or non-specified wall-mount is used or the consumer fails to follow the product installation instructions.
- Do not mount the product at more than a 15 degree tilt.
- Standard dimensions for wall mount kits are shown in the table below.
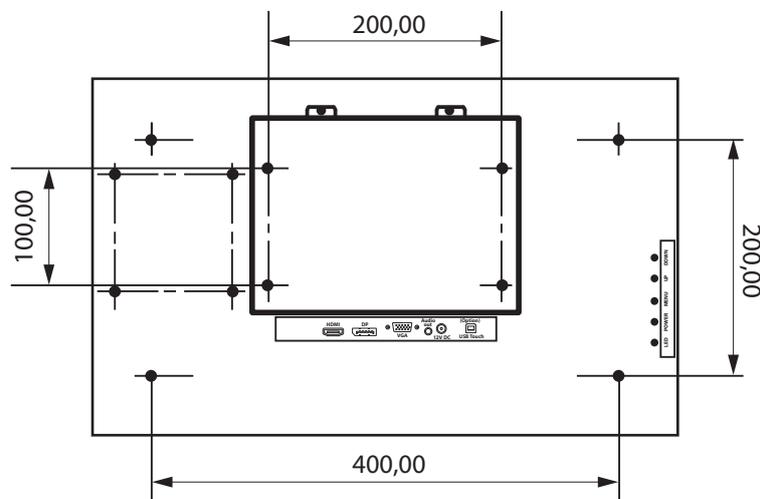
VESA screw hole specification A x B in millimetres	Standard screw	Quantity
200 x 100 / 400 x 200	M4, maximum length 10mm	4

VESA PC Mount Specification

Install a Mini-PC on the back side of the monitor.

- Do not use screws that are longer than shown in the table below. Screws that are too long may cause damage to the inside of the product.

- Do not fasten the screws too firmly. This may damage the product or cause the product to fall, leading to personal injury. Portsignum GmbH is not liable for these kinds of accidents.

- Portsignum GmbH is not liable for product damage or personal injury when a non-VESA or non-specified wall-mount is used or the consumer fails to follow the product installation instructions.

- Standard dimensions for wall mount kits are shown in the table below.
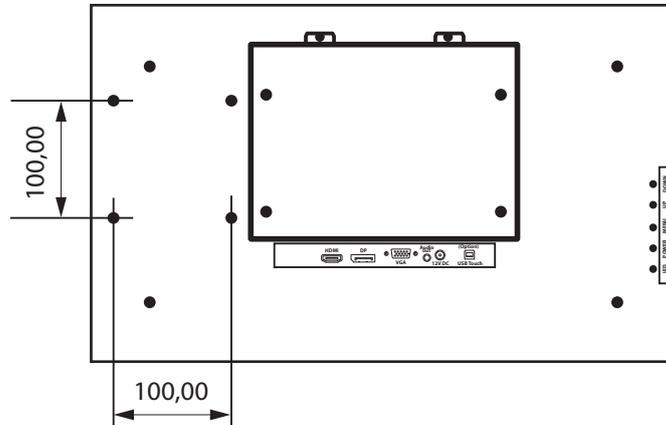
VESA screw hole specification A x B in millimetres	Standard screw	Quantity
100 x 100	M4, maximum length 6mm	4

Connecting a PC

Select your preferred video connection type.

Connection using a HDMI cable
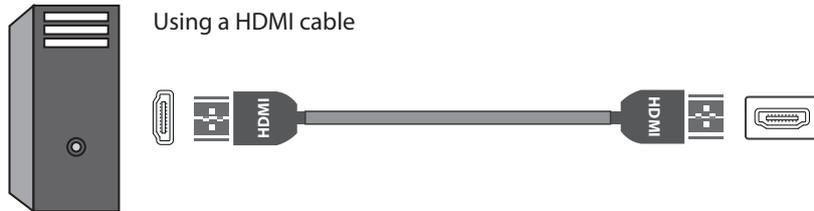
Using a HDMI cable

Connection using a DP cable

Using a DP cable

Connection using a HDMI - DVI cable

Using a HDMI-DVI cable
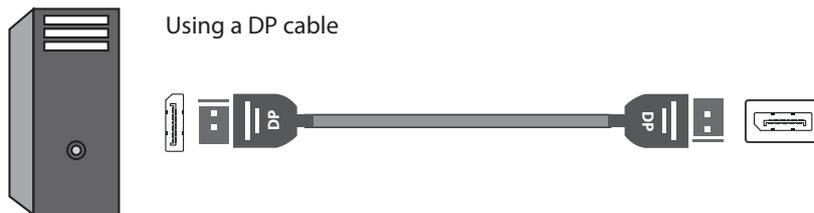
The optimum resolution may not be available with an HDMI-DVI cable.
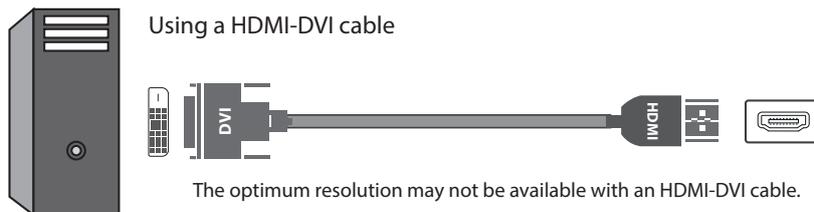
Connection using a VGA cable

Using a VGA cable
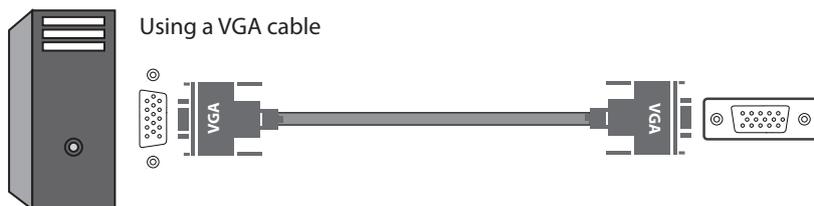
Connecting USB cable for touch (option)

If a PCAP touch is installed, a USB cable is required to connect the touch to the PC.

USB cable Type A > Type B
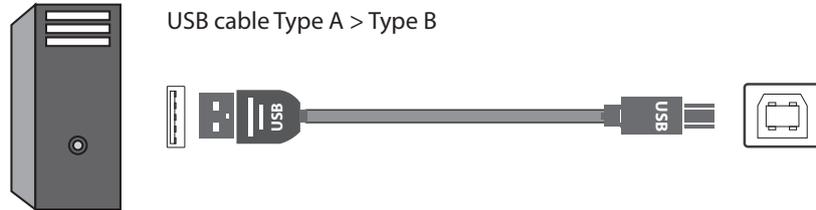
Connecting to power

Precautions

Before connecting the monitor to power, check if all signal cables are plugged in properly, on both sides - the monitor and the external PC.

After all signal cables have been properly connected, connect the power cables ans switch the monitor on.

Connect power cable

12 V DV

LED   POWER   MENU   UP   DOWN
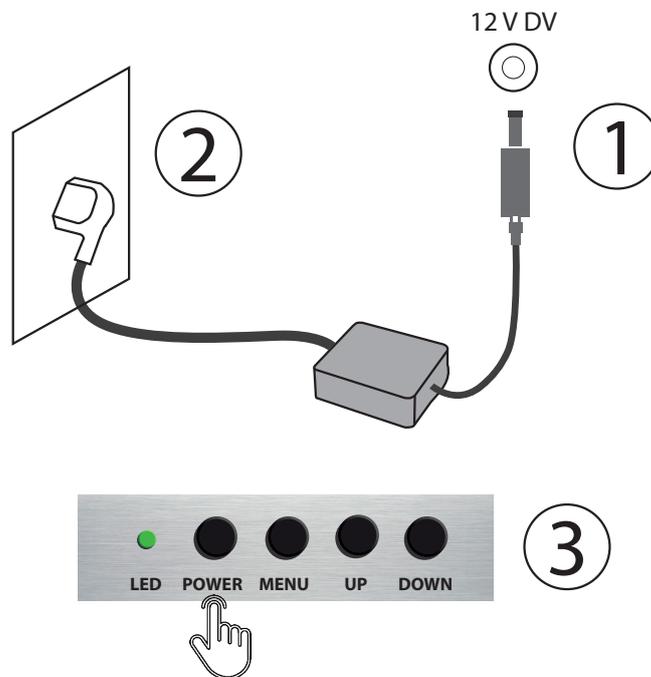
1. Connect the power cable to the AC/DC adapter. Then connect the AC/DC adapter to the DC 12V port on the back of the monitor.

2. Next, connect the power cable to the power outlet.

3. Press the power button on the back of the monitor to switch the monitor on.

OSD Menu

Control Panel

The colour and shape of parts may differ from what is shown.
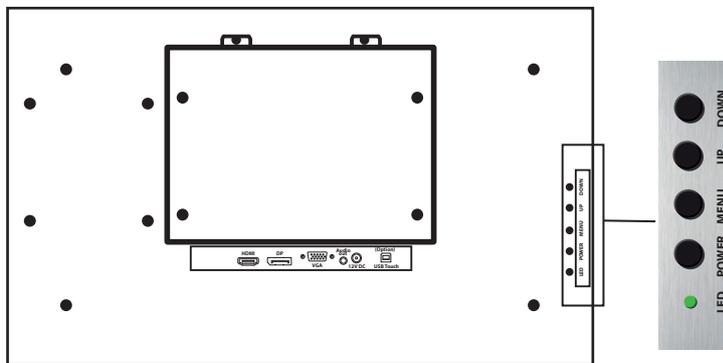
Part	Description
LED	This LED is the power and signal status indicator. **LED off**: Monitor is switched off **LED colour amber**: Monitor is switched on, no video signal **LED colour green**: Monitor switched on, video signal detected
POWER	Switch monitor on / off
MENU	Displays the on-screen menu
UP	Move cursor up Increase value
DOWN	Move cursor down Decrease value

The OSD (On Screen Display) provides certain functions for display configuration. OSD is controlled by four push-buttons. A LED indicates the display status.

Button Layout

LED	Power	Menu	UP	DOWN
OFF: Display Off AMBER: No Signal GREEN: Normal State	**DISPLAY ON/OFF**	OPEN OSD SELECT	MOVE UP INCREASE VALUE	MOVE DOWN DECREASE VALUE

Operating the monitor

Press the MENU button to open the **O**n **S**creen **D**isplay feature. Then use the UP/DOWN buttons to select the desired adjustment you want to make. Press the MENU button to select the highlighted item.
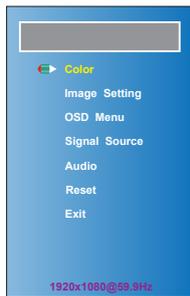
Brightness adjust
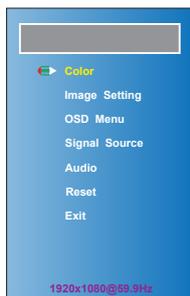
Select path	Problem / Option	Button
Color > Brightness	Too dark: Too bright:	UP Down

Contrast adjust

Color	Brightness	Brightness
Image Setting	**Contrast**	**Contrast**
OSD Menu	Color Temp	Color Temp
Signal Source	Auto Color	Auto Color
Audio	Exit	Exit
Reset		
Exit		- ▮▮▮ + 50
1920x1080@59.9Hz	1920x1080@59.9Hz	1920x1080@59.9Hz
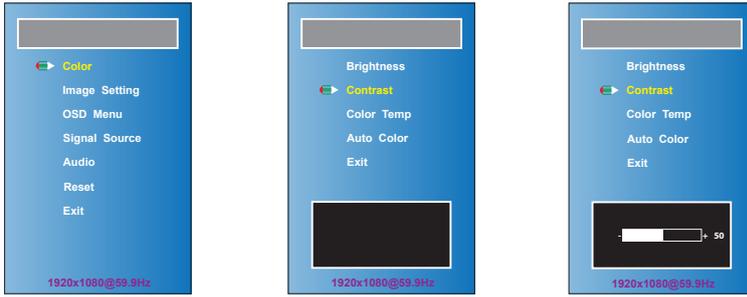
Select path	Problem / Option	Button
Color > Contrast	Too dull: Too intense:	UP Down

Color temperature adjust

Color	Brightness	Cool
Image Setting	Contrast	Normal
OSD Menu	**Color Temp**	Warm
Signal Source	Auto Color	sRGB
Audio	Exit	**User**
Reset		Exit
Exit		
1920x1080@59.9Hz	1920x1080@59.9Hz	1920x1080@59.9Hz

Select path	Problem / Option	Button
Color > Color Temp > Cool Color > Color Temp > Normal Color > Color Temp > Warm Color > Color Temp > sRGB	Cool color: Normal color: Warm color: sRGB mode:	Menu
Color > Color Temp > User > Red Color > Color Temp > User > Green Color > Color Temp > User > Blue	Too weak Too strong	UP Down

Auto color adjust

Color	Brightness
Image Setting	Contrast
OSD Menu	Color Temp
Signal Source	**Auto Color**
Audio	Exit
Reset	
Exit	
1920x1080@59.9Hz	1920x1080@59.9Hz
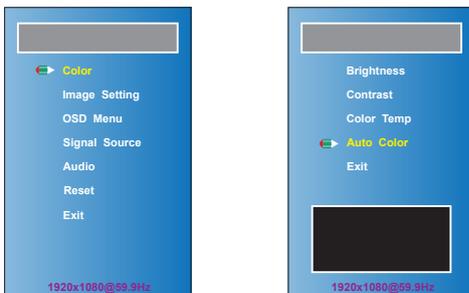
Select path	Problem / Option	Button
Color > Contrast > Auto Color	Auto color	Menu

Sharpness adjust

	Color
⇨	**Image Setting**
	OSD Menu
	Signal Source
	Audio
	Reset
	Exit

1920x1080@59.9Hz

	Clock
	Phase
⇨	**Sharpness**
	H Position
	V Position
	Exit

1920x1080@59.9Hz

	Clock
	Phase
⇨	**Sharpness**
	H Position
	V Position
	Exit

-   + 2

1920x1080@59.9Hz
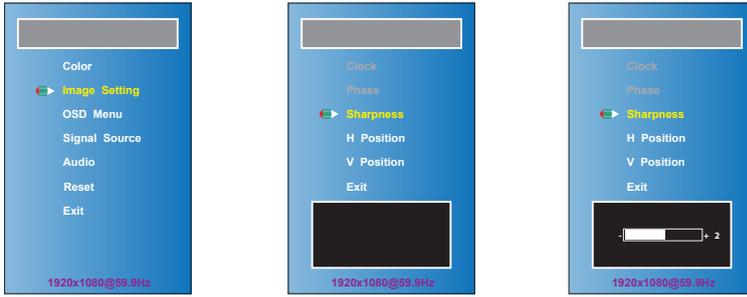
Select path	Problem / Option	Button
Image Setting > Sharpness	Too weak: Too strong:	UP Down

Horizontal position adjust

	Color
⇨	**Image Setting**
	OSD Menu
	Signal Source
	Audio
	Reset
	Exit

1920x1080@59.9Hz

	Clock
	Phase
	Sharpness
⇨	**H Position**
	V Position
	Exit

1920x1080@59.9Hz

	Clock
	Phase
	Sharpness
⇨	**H Position**
	V Position
	Exit

-   + 50

1920x1080@59.9Hz

Select path	Problem / Option	Button
Image Setting > H Position	Too left: Too right:	UP Down

Vertical position adjust

	Color
⇨	**Image Setting**
	OSD Menu
	Signal Source
	Audio
	Reset
	Exit

1920x1080@59.9Hz

	Clock
	Phase
	Sharpness
	H Position
⇨	**V Position**
	Exit

1920x1080@59.9Hz

	Clock
	Phase
	Sharpness
	H Position
⇨	**V Position**
	Exit

-   + 50

1920x1080@59.9Hz
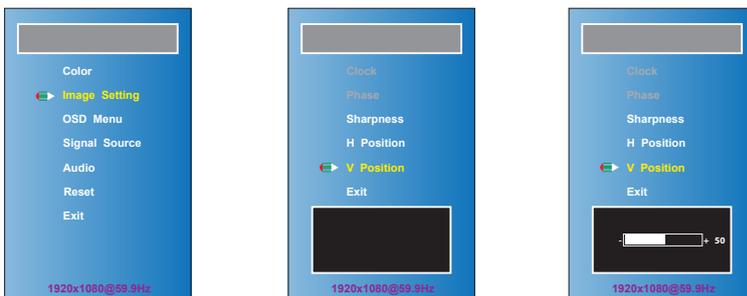
Select path	Problem / Option	Button
Image Setting > V Position	Too low: Too high:	UP Down

OSD horizontal position adjust

Select path	Problem / Option	Button
OSD Menu > OSD H Position	Too left: Too right:	UP Down

OSD vertical position adjust

Select path	Problem / Option	Button
OSD Menu > OSD V Position	Too low: Too high:	UP Down

OSD display duration time adjust

Select path	Problem / Option	Button
OSD Menu > OSD Time	Display time between 1 and 20 Seconds	UP Down

OSD language adjust

Select path	Problem / Option	Button
OSD Menu > Language > English OSD Menu > Language > French OSD Menu > Language > German OSD Menu > Language > Spanish	Select OSD language	Menu

Signal source adjust
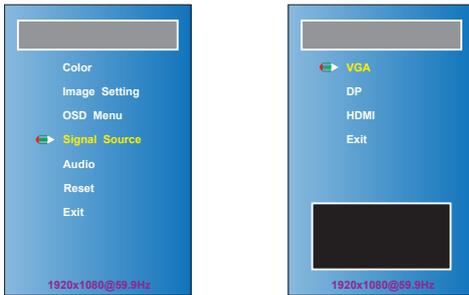
Select path	Problem / Option	Button
Signal Source > VGA Signal Source > DP Signal Source > HDMI	Select signal source	Menu

Audio volume adjust

Select path	Problem / Option	Button
Audio > Volume	Too quiet Too loud	Up Down

Audio mute adjust
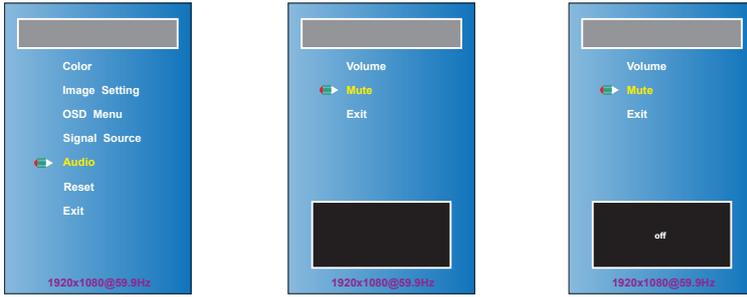
Select path	Problem / Option	Button
Audio > Mute	Toggle between audio on/off	Menu

Reset to factory default settings
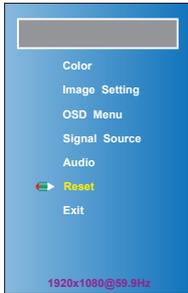
Select path	Problem / Option	Button
Reset	Factory-preset data is restored	Menu

Specifications

Display

Parameter	Unit	Value
Screen Technology		AHVA (IPS-like)
Screen Diagonal	[mm]	546.86 (21.5")
Active Area	[mm]	476.064 (H) x 267.786 (V)
Pixels		1920 H (x3) x 1080 V
Pixel Arrangement		R:G:B Vertical Stripe
Display Mode		AHVA Mode, Normally Black
White Luminance Center	[cd/m²]	500 (Typ.)
Contrast Ratio		1000 (Typ.)
Optical Response Time	[ms]	22 (Raising + Falling)
Support Color		16.7M
Viewing Angle	[degree]	178 H / 178 V
Aspect Ratio		16 : 9

VGA Signal Input (Analog 15pin D-Sub)

Pin No.	SYMBOL	Pin No.	SYMBOL	Pin No.	SYMBOL
1	RED IN	6	R-GND	11	GND
2	GREEN IN	7	G-GND	12	SDA DDC
3	BLUE IN	8	B-GND	13	SYNC H
4	GND	9	PC 5V	14	SYNC V
5	VGA DET	10	GND	15	SCL DDC

HDMI Signal Input (1.4a, HDCP 1.3)

Pin No.	SYMBOL	Pin No.	SYMBOL	Pin No.	SYMBOL
1	HDMI_DATA2+	8	GND	15	HDMI_SCL
2	GND	9	HDMI_DATA0-	16	HDMI_SDA
3	HDMI_DATA2-	10	HDMI_CLK+	17	GND
4	HDMI_DATA1+	11	HDMI_DET	18	HDMI_5V
5	GND	12	HDMI_CLK-	19	HDMI_HDP
6	HDMI_DATA1-	13	CEC	-----	-----
7	HDMI_DATA0+	14	NC	-----	-----

Display Port Signal Input (1.2, HDCP 1.3)

Pin No.	SYMBOL	Pin No.	SYMBOL	Pin No.	SYMBOL
1	LANE3-	8	GND	15	AUX_CHP
2	GND	9	LANE1+	16	DP DET
3	LANE3+	10	LANE0-	17	AUX_CHN
4	LANE2-	11	GND	18	HPD
5	GND	12	LANE0+	19	RETURN
6	LANE2+	13	GND	20	DP_5V
7	LANE1-	14	GND	-	-

PCAP touch (option)

Parameter	Unit	Value
Type		Projected Capacitive (PCAP)
Structure		Glass / Glass
Surface		Glossy
Assembly		Air Bonded
Number of Touchpoints		10
Transparency		≥ 85%
Surface Hardness		≥ 6H
Color Bezel		Black (RAL9005)
Touch IC		EETI

Environmental ratings

Parameter	Symbol	Unit	Min	Max
Operating Temperature	T_{OP}	oC	-10	40
Storage Temperature	T_{ST}	oC	-20	60
Operating Ambient Humidity (non condensing)	H_{OP}	%RH	10	85
Storage Humidity (non condensing)	H_{ST}	%RH	10	85

Electrical ratings

Parameter	Symbol	Unit	Min	Typical	Max
Input Voltage	V_{DC}	V	11,6	12	12,4
Power Consumption	PWR	W	21	23	25

Housing, mounting

Parameter	Unit	Value
Housing		Sheet Steel,
Surface		Hot-galvanized
VESA Mount	[mm]	200 x 100, 400 x 200
VESA Mount for Mini-PC	[mm]	100 x 100

Approvals

CE and FCC certification

CE: Class B
FCC: Class A

ORDER INFORMATION

Displays
Product No.: 9100000:   Monitor PSIV-215-OF (open-frame)
Product No.: 9100001:   Monitor PSIV-215-PF (with PCAP and front frame)

Options Touch
Product No.: 9100002:   Touch PSO215-PCAP/true-flat (for 9100000)

Options Mounting
Product No.: 9100005:   Set mounting brackets (2 pieces)

Options Power Supply
Product No.: 3100032:   Power supply 110/230V AC, 12V/5A DC

Options Cables
Product No.: 4100025:   HDMI cable, 0.5 m
Product No.: 4100026:   HDMI cable, 2.0 m
Product No.: 4100001:   Display Port cable, 0.5 m
Product No.: 4100003:   Display Port cable, 2.0 m
Product No.: 4100023:   USB 2.0 cable, type A -> B, 0.5 m
Product No.: 4100024:   USB 2.0 cable, type A -> B, 2.0 m