COMODO

COMODO
M7pro
IPS HD FIELD MONITOR

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Pb
lead-free

RoHS
2002/95/EC

USER GUIDE

M7pro
IPS HD FIELD MONITOR

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The Comodo M7pro IPS HD Field Monitor is a super-high resolution 7" LCD screen with a wide viewing angle. Featuring user-programmable function buttons including; Peaking, False Colour and Exposure filters, multiple power and signal input options as well as removable battery plates.

With a tough and durable aluminium housing, the M7pro monitor has been designed to withstand frequent handling and the most demanding uses.

The M7pro is one of the highest grade professional video monitors available today.

In order to obtain the full benefit from your purchase, please take a few moments to familiarise yourself with these operating instructions.

For more information on our range of cross-media broadcast accessory solutions, see our website: **www.comodorigs.com**
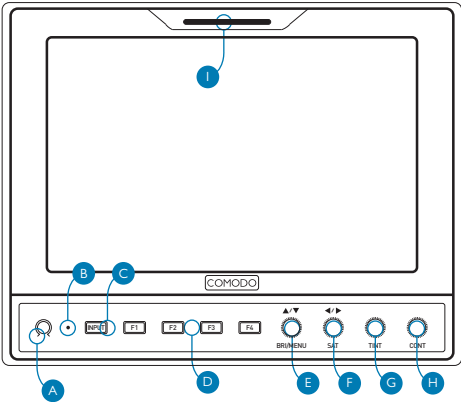
SAFETY NOTES

✓ ALWAYS

• Avoid placing cables where they can be tripped over.
• Protect cables from heavy, sharp or hot objects which may cause damage. Replace any damaged cables immediately.
• All servicing must be carried out by a Bowens authorised service centre. Adjustments, other than those in the menu system, must only be performed by a qualified technician.
• Consult the troubleshooting guide before making adjustments, as improper use could damage the unit.
• Unplug the AC mains adaptor and remove the battery during periods of long-term inactivity.
• Ensure that any extension cord used has a suitable current rating to prevent overheating, and never use coiled extension cords.

✖ NEVER

• Use in an environment where moisture or flammable vapour is likely to come in contact with the unit.
• Expose the monitor to direct sunlight.
• Use chemical solutions to clean the monitor. Wipe with a clean, soft cloth to maintain screen brightness.
• Restrict air-vents while in use.
• Use a unit with damaged housing, mouldings or screen. If the unit is dropped or damaged in any way, always have it checked before using.
• Operate the unit with an AC mains adaptor other than that supplied with the monitor and ensure that you use a safe, grounded AC supply.
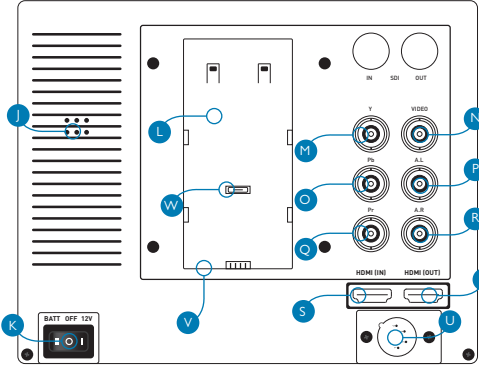• Use the monitor in an electrical storm as damage may result.

| FRONT CONTROLS

A Headphone Jack.

B Power On Indicator.

C Signal Input Selector.

D **F1, F2, F3, F4: User definable buttons.**
   Default Functions:
   F1 Peaking.   **F3** Exposure.
   F2 False Colour.   **F4** Histogram.

E **R1 BRI/MENU:**

   Press the dial to access the menu function, pressing the dial in the menu function returns to the previous page or exits the menu. Rotate the dial to select and option. Default set as Brightness function.

F **R2 SAT:**

   Press the dial to select the main menu options; rotate dial to confirm the selection and adjust parameter values. Default set as Saturation function.

G **R3 TINT:**

   Default set as Tint function.

   (Tint adjustment is only available in VIDEO and NTSC mode.)

H **R4 CONT:**

   Default set as Contrast function.

I Tally Light Indicator.

| REAR CONTROLS

J Loud Speaker.

K Battery / Mains / Off - Power Toggle Switch.

L Battery Plate Mount.

M Y Signal Input.

N Video Signal Input.

O Pb Signal Input.

P Audio (Left) Input.

Q Pr Signal Input.

R Audio (Right) Input.

S HDMI Signal Input.

T HDMI Signal Output.

U 4-Pin XLR DC Power Input.

Pin Number	Signal
1	Ground
2, 3	---------
4	+12V

V Power Cable Interface (Under Battery Plate).

   For connecting V-Lock or Anton/Bauer battery adaptor).

W Mini USB port.

   For engineer use only.

| MAINS POWER.

The M7pro IPS HD Field Monitor is supplied with a 12V/1.5A mains adaptor, which plugs into the XLR DC power input socket on the rear.

| BATTERY POWER.

The M7Pro monitor kit includes two camera battery adaptors that allow the monitor to be powered by Sony NP-F or Canon LP-E6 battery. These adaptors simply slot into the battery plate mount on the back of the monitor.

The adaptor plate supplied allows the attachment of optional mounting plates for professional V-mount or Anton/Bauer batteries (see optional accessories, page 17).

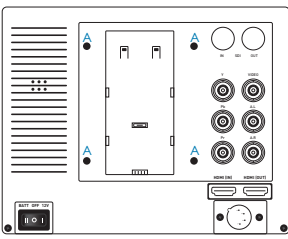FITTING THE ADAPTOR PLATE. (SEE DIAGRAM)

First thread the power cable from the V-Lock or Anton/Bauer battery plate through the aperture marked 'D' and plug into the power cable interface. Next, affix the Adaptor Plate to the back of the monitor using the supplied screws in the holes marked 'A'.

If you are attaching the Anton/Bauer battery plate, affix using the holed marked 'B', if you are attaching the V-Lock plate use the holed marked 'C'.
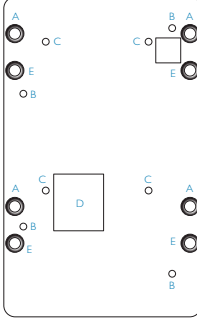
| XLR SOCKET.

The monitor can also be powered via the 4-pin XLR socket. This allows power to be provided by the AC adaptor included in the kit or by a camcorder or battery belt with a 12V power outlet using a separate 4-pin XLR cable (not supplied).
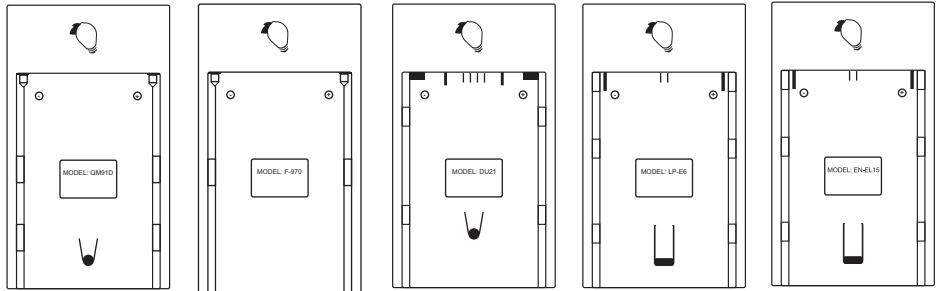
BATTERY PLATE MOUNT

ADAPTOR PLATE

KEY:
A. Monitor Mount.
B. Anton/Bauer Plate Mount.
C. V-Lock Plate Mount.
D. Power Cable Interface.
E. Not used.

DSLR/DV BATTERY MOUNTING PLATES.

The following five types of battery plate are suitable with the M7pro monitor.

Canon LP-E6 (Standard)	Sony NP-F L Series (Standard)	Sony NP-QM M Series (Optional)	Panasonic CGA-DU (Optional)	Nikon EN-EL15 (Optional)
For Canon DSLR batteries compatible with: EOS 5D MkIII, EOS 5D MkII, EOS 7D, EOS 60D, EOS 60Da.	For Sony DV/HDV camera batteries compatible with: DCR-TRV Series, DCR-TRV E Series, VX2100E PD P Series, GV-D700, GV-D800, FD/ CCD-SC/ TR3/ FX1E/ HDR-FX1000, HVR-HD1000, HVR-Z1, HVR-V1, FX7, F330, HXR-NX5.	For Sony DV batteries compatible with: DSCR1/F/S/ MVCCD/E/ HC15E/ HC1E/ AE1u/ DCRTRV828/E/ CCD-TRV116/ DCR-DVD/ PS105K/ 300K/ 10P/1E Series, HVR-A1. PS105K/ 300K/ 10P/ 1E Series, HVR-A1.	For Panasonic DV batteries compatible with: NV-GS/ PV-GS/ SDR-H/ VDR-D/ VDR-M series. Also suitable for use with Panasonic DU06/ VBD140/ Sanyo DZHS301SW/ Hitachi DZ-HS303SW/ BZ-BP14S/ DZ3200/ BP07W batteries.	For Nikon camera batteries compatible with: D7000, D800, D800E, D600, 1 V1.PS105K/ 300K/ 10P/ 1E Series, HVR-A1.

| SETTING MENU FUNCTIONS.

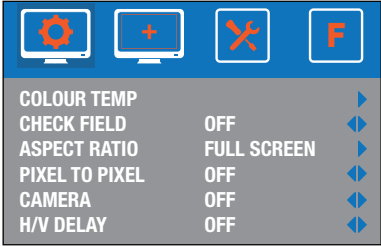*Before setting functions, ensure that the monitor is connected correctly.*

With the power on, press the BRI/MENU dial. The menu will appear on the screen.

Rotate the SAT dial to select your desired main menu option at the top of the screen, then rotate the TINT dial to select an option from the menu below. Rotate the SAT dial to change the option value.

Where the selected option has a sub-menu, use the BRI/MENU dial to scroll through the sub-menu options. Then rotate the SAT dial to set a new value.
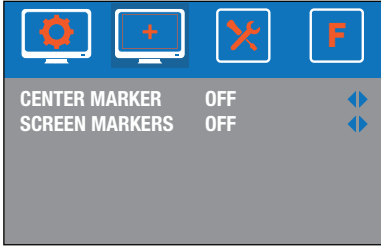
Once you have changed any options, press the BRI/MENU dial to return to the previous screen or to exit the menu system.

| CONFIGURATION MENU.

COLOUR TEMP	
CHECK FIELD	OFF
ASPECT RATIO	FULL SCREEN
PIXEL TO PIXEL	OFF
CAMERA	OFF
H/V DELAY	OFF

Item	Options	
Colour Temp	6500ºK/7500ºK/9300ºK/User	
	Red	Note: Only available under 'User' mode to meet the colour value required.
	Green	
	Blue	
Check Field	OFF, MONO, Red, Green, Blue	
Aspect Ratio	Full Screen, 4:3, 16:9	
Pixel to Pixel	ON/OFF	
Camera	1080i, 480p	
H/V Delay	OFF, H&V Delay, V Delay, H Delay	
Underscan	ON/OFF	

operation: configuration menu

| MARKER MENU.

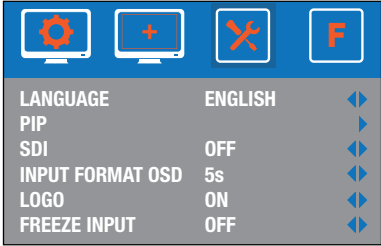| CENTER MARKER | OFF |
| SCREEN MARKERS | OFF |

Item	Options
Center Marker	ON/OFF
Screen Markers	OFF, 95%, 93%, 90%, 88%, 85%, 80%

| SETTINGS MENU. CONT.

† In small, medium and large mode, users can swap and adjust the signal source and PIP position. In PBP and POP mode users can adjust the signal source only.

* If you re-assign a pre-programmed function button to a different function with Assistant Function set to 'Auto' the monitor will reset to the factory setting when powered off and then on again. To keep a changed setting, set the Assistant Function to 'Manual'.

| SETTINGS MENU.

LANGUAGE	ENGLISH
PIP	
SDI	OFF
INPUT FORMAT OSD	5s
LOGO	ON
FREEZE INPUT	OFF

Item	Options
Language	English, Chinese
PIP †	Small, Medium, Large, PBP, POP
Input Format OSD	5s, 10s (Default), 15s
Logo	ON/OFF
Freeze Input	ON/OFF
Image Flip	H / V / H&V
Wave / Vector	Y/Vector/R/G/B/Cb/Cr/Off
Waveform Trans	ON/OFF
Assistant Func *	Auto/Manual
Manufacturer Default	OK/Cancel
ISP	For engineer use only

operation: marker & settings menu

| FUNCTION CONTROLS.

INPUT: Toggles the signal input between HDMI, YPbPr and Video.

The function of the F1-F4 buttons and the control dials can be customised to your own requirements.
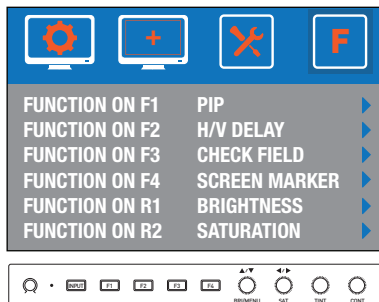
F1-F4 Buttons can be set to:

> Aspect Ratio	> Zoom
> Check Field	> Camera
> Freeze Input	> Pixel-to-Pixel
> Center Marker	> PIP
> Underscan	> Peaking *(Default F1)*
> H/V Delay	> False Colour *(Default F2)*
> Colour Bar	> Exposure *(Default F3)*
> Screen Marker	> Histogram *(Default F4)*
> Audio Level Meter	> Waveform / Vector

R1-R4 Dials can be set to:

> Contrast *(Default R4)*

> Brightness *(Default R1)*

> Saturation *(Default R2)*

> Tint *(Default R3)*

> Volume

> Sharpness

> Backlight

| FUNCTION MENU.

| CHANGING FUNCTIONS.

1. Press BRI/MENU to enter the menu system.

2. Rotate SAT to highlight the Function menu.

3. Rotate BRI/MENU to select the F or R function you want to change.

4. Rotate SAT to enter the sub-menu.

5. Rotate BRI/MENU to select the desired value.

6. Rotate SAT to confirm the new value.

7. Press BRI/MENU to exit the menu system.

| PEAKING FILTER.

The Peaking Filter is used to help you obtain the sharpest possible picture.

The Peaking Filter can be used in Mono or Colour mode (adjusted from the Settings Menu).

When activated, the monitor will display red lines on the screen where sharp edges appear.

When you adjust the Follow Focus control, or the camera lens, different parts of the image will have red edges, this indicates that this portion of the image is sharp or in-focus.
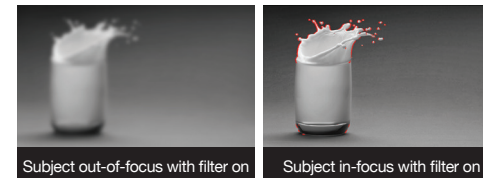
Simply adjust the camera lens focus control until the desired portion of the image has red coloured edges to achieve the perfect picture.

NOTE: This feature is most effective when the subject is properly exposed and contains enough contrast to be processed.

| FILTER OFF.

Subject out-of-focus with filter off   Subject in-focus with filter off

| FILTER ON (MONO MODE).

Subject out-of-focus with filter on   Subject in-focus with filter on

| FILTER ON (COLOUR MODE).

Subject out-of-focus with filter on   Subject in-focus with filter on
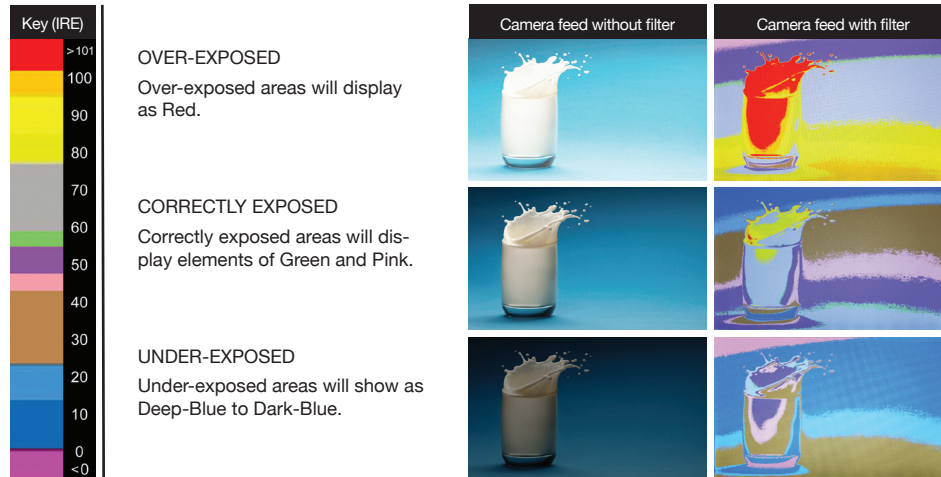
| FALSE COLOUR FILTER.

The False Colour Filter is used to help set camera exposure.

As the camera iris is adjusted, elements of the image will change colour based on the luminance or brightness values. (See IRE colour key).
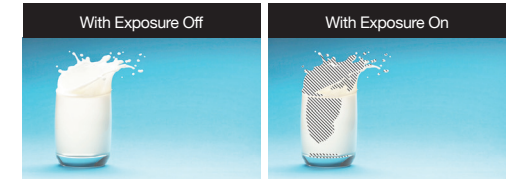
Key (IRE)
>101
100
90
80
70
60
50
40
30
20
10
0
<0

OVER-EXPOSED

Over-exposed areas will display as Red.

CORRECTLY EXPOSED

Correctly exposed areas will display elements of Green and Pink.

UNDER-EXPOSED

Under-exposed areas will show as Deep-Blue to Dark-Blue.

Camera feed without filter   Camera feed with filter

| EXPOSURE (ZEBRAS).

The Exposure Filter can be used in conjunction with the False Colour Filter to assist in adjusting your camera to correct exposure levels.

When the Exposure Filter is switched on, Zebra stripes will appear on the screen as black and white diagonal lines.
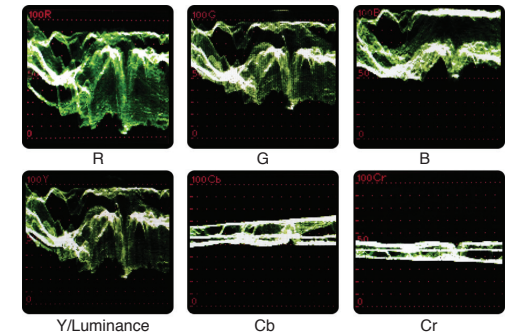
The zebra pattern will appear on the parts of the image that have reached 100% brightness, to warn that the area is overexposed and about to lose detail due to white crushing or clipping.

With Exposure Off   With Exposure On

| WAVEFORM.

Waveform monitoring consists of R, G, B, Y/Luminance, Cr and Cb waveforms, which are used for measuring the brightness, luminance or chroma values from a video input signal.

It can be used to warn the user of out-of-range conditions such as overexposure errors, and also assist with colour correction as well as camera white and black balance.

R   G   B

Y/Luminance   Cb   Cr

| BRIGHTNESS HISTOGRAM.

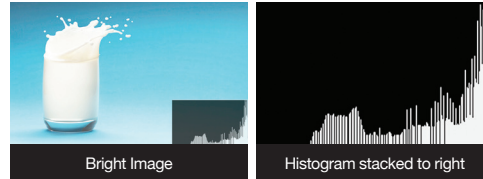The Brightness Histogram tool can be used to check the picture brightness.

This tool shows the image's overall exposure as a graph.

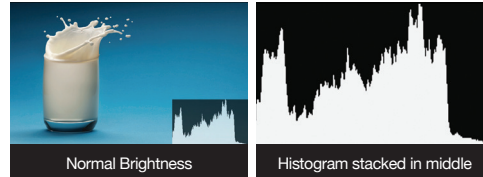The graph is made up of 255 vertical bars to represent brightness levels from 0 to 255,

The leftmost bar is the darkest pixel level (0), and the rightmost bar is the lightest (255).

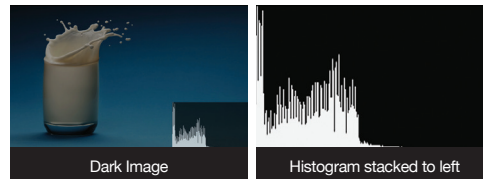The height of the bars represents the total number of pixels at that brightness level.

| BRIGHT EXAMPLE.

Bright Image

Histogram stacked to right

| NORMAL BRIGHTNESS EXAMPLE.

Normal Brightness

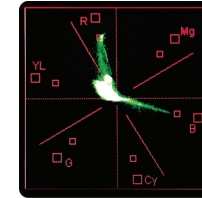Histogram stacked in middle

| DARK EXAMPLE.

Dark Image

Histogram stacked to left

| VECTORSCOPE.

Vectorscope shows how saturated the image is, and also where the pixels in the image land on the colour spectrum.

It can be displayed in various sizes an positions allowing users to monitor the colour gamut range in real time.

| AUDIO LEVEL METER.

The Audio level meter provides numerical level indicators and headroom levels.

It can generate accurate audio level displays to prevent errors during monitoring.

SUNSHADE

| FITTING THE SUNSHADE.

1. Unfold the Fabric Sunshade.
2. Attach the hook and loop strip on the sunshade tightly to the sunshade receiver on the monitor.

| REMOVING THE SUNSHADE.

1. Remove the Sunshade by detaching it from the hook and loop strips on the sunshade receiver, first detach the sides then the top taking care not to mark or scratch the screen.
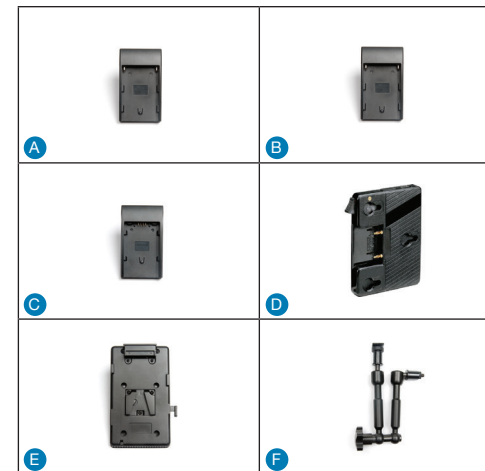2. Fold up and store the sunshade safely.

Accessories included with the M7pro Monitor		
Battery Mounts and Adaptors.		
1	VB1665	Sony NP-F Battery Mount
2	VB1625	Canon LP-E6 Battery Mount
3		Battery Adaptor Plate.
Monitor Mounts.		
4	VB1635	Hotshoe Swivel Mount
Power.		
5	VB1645UK	AC Mains Adaptor. UK Plug.
or	VB1645EUR	AC Mains Adaptor. EU Plug.
or	VB1645US	AC Mains Adaptor. US Plug.
or	VB1645AUS	Australian AC Mains Adaptor.
Cables.		
6	VB1650	HDMI - Mini HDMI Cable
Other Accessories.		
7		Detachable Fabric Sunshade
8		Fitted Flight Case

Optional accessories for the M7pro Monitor		
Battery Mounts and Adaptors.		
A	VB1626	Nikon EN-EL15 Battery Mount.
B	VB1605	Sony NP-QM Battery Mount.
C	VB1610	Panasonic DU21 Battery Mount.
D	VB1660	Anton/Bauer Battery Adaptor.
E	VB1630	V-Lock Battery Adaptor.
Other Accessories.		
F	VB1615	Monitor Attachment Arm.

This product is covered by a one-year warranty against any faulty design, materials and workmanship.

If a product does not work on arrival, or up to a maximum period of four weeks from the date of dispatch of the product, it should be returned to the dealer/retail outlet from where is was purchased for exchange (subject to stock availability). If the faulty unit was part of a kit, the dealer/retailer may choose to only replace the unit and not the entire kit.

Alternatively the dealer may offer to repair the unit as soon as possible at no charge.

If neither an exchange nor repair is possible for the faulty unit, then a full refund may be made.

If a warranty fault occurs after the initial four-week period (and within the maximum one year warranty period), then the unit should be returned to the dealer, who will arrange to repair the unit as soon as possible, at no charge.

This warranty does not apply to consumable items such as batteries.

Should a unit be returned at any time within the one year warranty period, and it is judged to have experienced any of the following;

Failure to follow working instructions correctly, accidental or wilful damage, misuse, alteration or repair by a non-authorised Bowens service/repair centre, then the warranty will be deemed invalid and any repairs required will be payable by the owner.

The dealer, in advance of undertaking any work that may be required, should notify the cost of any repairs to the owner.

No warranty repairs can be undertaken to any units without proof of purchase.

All warranty repairs or returns must be conducted with the dealer from where the product was purchased.

Other terms and conditions may be applicable in specific countries, if stated at the time of purchase.

Requesting Service - Comodo products purchased throughout the world will have varying service and repair processes depending upon the region it is purchased in.

Please visit: http://www.ComodoRigs.com/Warranty to determine how to correctly process your service and repair request.

1. **Images only appear in black and white.**

   Check that the colour saturation and brightness are correctly set.

2. **Power is on but no image is displayed.**

   Check that the appropriate input cable is correctly connected. If using mains power, use the standard mains adaptor supplied with the monitor as improper power input may cause permanent damage.

3. **Incorrect or abnormal colours are displayed.**

   Check that the appropriate input cable is correctly connected. Broken or damaged contact pins may cause a bad connection and affect image quality.

4. **Bright lines appear briefly on the screen when the monitor is turned off.**

   This is normal and is no cause for concern.

5. **Other problems.**

   From the "Settings Menu", select "Manufacturer Default" to return the monitor to factory default settings.

SPECIFICATIONS

Screen Size:	7" (17cm) TFT LCD (16:9)
Resolution:	1280x800 Native up to 1920x1080
Brightness:	400cd/m2
Contrast:	800:1
Viewing Angle	178°H / 178°V
Input Signal:	HDMI, YPbPr, (Component RGB) BNC, Composite Video BNC / Phono
Output Signal:	HDMI
Current:	900mA
Power Consumption:	<11W
Width x Height:	191.5mm x 152mm
Depth	31mm (without sunshade), 141mm (with sunshade)
Weight:	760g (without sunshade), 938g (with sunshade)
Part No.:	**VB1950UK** (UK) **VB1950EUR** (Europe) **VB1950US** (USA) **VB1950AUS** (Australia)