

# User Manual 2U Multi-Display Console Drawer

	FC C	E UK TAA KANA	
4K	MRK-K17-2L	MRK-K17-3	MRK-K17-2R
1080p 60 Hz	MRK-F17-2L	MRK-F17-3	MRK-F17-2R
1920 1200	MRK-X17-2L	MRK-X17-3	MRK-X17-2R
1280 1024	MRK-19-2L	MRK-19-3	MRK-19-2R

Designed and manufactured by Austin Hughes

751

### Legal Information

First English printing, January 2025

Information in this document has been carefully checked for accuracy; however, no guarantee is given to the correctness of the contents. The information in this document is subject to change without notice. We are not liable for any injury or loss that results from the use of this equipment.

### Safety Instructions

# Please read all of these instructions carefully before you use the device. Save this manual for future reference.

- Unplug equipment before cleaning. Don't use liquid or spray detergent; use a moist cloth.
- Keep equipment away from excessive humidity and heat. Preferably, keep it in an air-conditioned environment with temperatures not exceeding 40° Celsius (104° Fahrenheit).
- When installing, place the equipment on a sturdy, level surface to prevent it from accidentally falling and causing damage to other equipment or injury to persons nearby.
- When the equipment is in an open position, do not cover, block or in any way obstruct the gap between it and the power supply. Proper air convection is necessary to keep it from overheating.
- Arrange the equipment's power cord in such a way that others won't trip or fall over it.
- If you are using a power cord that didn't ship with the equipment, ensure that it is rated for the voltage and current labelled on the equipment's electrical ratings label. The voltage rating on the cord should be higher than the one listed on the equipment's ratings label.
- Observe all precautions and warnings attached to the equipment.
- If you don't intend on using the equipment for a long time, disconnect it from the power outlet to prevent being damaged by transient over-voltage.
- Keep all liquids away from the equipment to minimize the risk of accidental spillage. Liquid spilled on to the power supply or on other hardware may cause damage, fire or electrical shock.
- Only qualified service personnel should open the chassis. Opening it yourself could damage the equipment and invalidate its warranty.
- If any part of the equipment becomes damaged or stops functioning, have it checked by qualified service personnel.

#### What the warranty does not cover

- Any product, on which the serial number has been defaced, modified or removed.
- Damage, deterioration or malfunction resulting from:
  - Accident, misuse, neglect, fire, water, lightning, or other acts of nature, unauthorized product modification, or failure to follow instructions supplied with the product.
  - $\hfill\square$  Repair or attempted repair by anyone not authorized by us.
  - □ Any damage of the product due to shipment.
  - □ Removal or installation of the product.
  - $\hfill\square$  Causes external to the product, such as electric power fluctuation or failure.
  - $\hfill\square$  Use of supplies or parts not meeting our specifications.
  - $\Box$  Normal wear and tear.
  - $\hfill\square$  Any other causes which does not relate to a product defect.
- Removal, installation, and set-up service charges.

#### **Regulatory Notices Federal Communications Commission (FCC)**

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in business, industrial and commercial environments.

Any changes or modifications made to this equipment may void the user's authority to operate this equipment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Re-position or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

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	Projected Capacitive (10-point touch) / Resistive (1-point touch) DC Power : 12V / 24V / 48V / 125V / 250V

### **Before Installation**

- It is very important to mount the equipment in a suitable cabinet or on a stable surface.
- Make sure the place has a good ventilation, is out of direct sunlight, away from sources of excessive dust, dirt, heat, water, moisture and vibration.

### Unpacking

The equipment comes with the standard parts shown in package content. Check and make sure they are included and in good condition. If anything is missing, or damaged, contact the supplier immediately.

### How To Clean Your LCD Monitor

## A Caution :

- To avoid the risk of electric shock, make sure your hands are dry before unplugging your monitor from or plugging your monitor into an electrical outlet.
- When you clean your monitor, do not press down on the LCD screen. Pressing down on the screen can scratch or damage your display. Pressure damage is not covered under warranty.
- Use only cleansers made specifically for cleaning monitors and monitor screens. Cleansers not made to clean monitors and monitor screens can scratch the LCD display or strip off the finish.
- Do not spray any kind of liquid directly onto the screen or case of your monitor. Spraying liquids directly onto the screen or case can cause damage which is not covered under warranty.
- Do not use paper towels or abrasive pads to clean your monitor. Using an abrasive pad or any wood based paper product such as paper towels can scratch your LCD screen.

### **Cleaning Your Monitor**

To clean your LCD safely, please follow these steps :

- ① Disconnect the power cord.
- ② Gently wipe the surface using a clean, dry microfiber cloth. Use as little pressure as possible.

### **Cleaning Tough Marks and Smudges**

To remove tough marks and smudges, please follow these steps :

- ① Disconnect the power cord.
- 2 Spray a small amount of non-abrasive cleanser on a microfiber cloth.

Caution : Do not spray or apply any liquids directly onto the monitor. Always apply the solution to your microfiber cloth first, not directly on the parts you are cleaning.

- ③ Gently wipe the surface. Use as little pressure as possible.
- ④ Wait until your monitor is completely dry before plugging it in and powering it up.

## < Part 1 > < 1.1 > Package Content



### MRK-K17 unit X1

- USB (A) to (A) cable X 1
- Power adapter & Power cord X1
- M6 screw, cage nut & cup washer X8

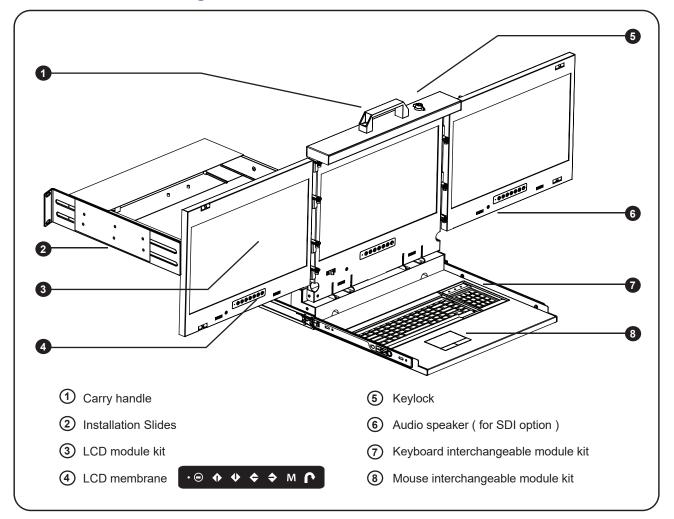
#### MRK-F17 /

#### MRK-X17 / MRK-19 unit X1

- 6ft DVI cable X 2 or 3
- USB keyboard cable X1
- Power adapter & Power cord X1
- M6 screw, cage nut & cup washer X8

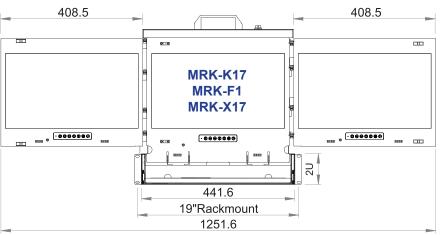
The above package content is only for the single console models. It varies with options such as SDI & DC power.

### < 1.2 > Structure Diagram



## < 1.2 > MRK-K17 / MRK-F17 / MRK-X17 Dimension

#### **Front View**



1mm = 0.03937 inch

#### Triple display R С L

Dual display ( LH mounted )

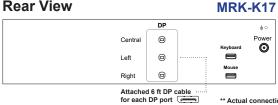


Dual display ( RH mounted )

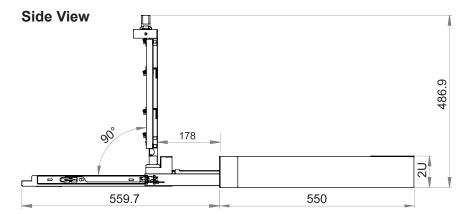


#### **MRK-F17 / MRK-X17**

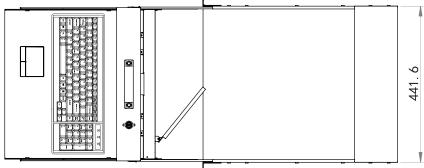
### **Rear View**



	DVI-D	VGA		Ŧo
Central	•			Power
Left	0	(38)	Keyboard	O
		_	Mouse	
Right		<b></b>		



#### **Top View**



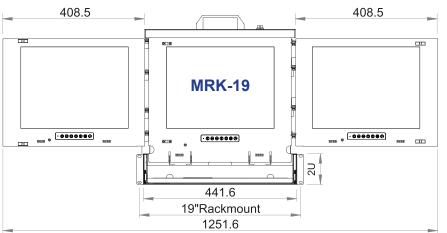
Model		Display	Product Dimension (W x D x H)	Packing Dimension (W x D x H)	Net Weight	Gross Weight
MRK-K17	-3	Triple	441.6 x 550 x 88 mm 17.4 x 21.7 x 3.5 inch	580 x 683 x 197 mm 22.8 x 26.9 x 7.8 inch	25.7 kg 56.5 lb	31.1 kg 68.4 lb
MRK-F17 MRK-X17	-2L	Dual LH mounted	441.6 x 550 x 88 mm	580 x 683 x 197 mm	21 kg	26 kg
	-2R	Dual RH mounted	17.4 x 21.7 x 3.5 inch	22.8 x 26.9 x 7.8 inch	46.2 lb	57.2 lb

\*\* Actual connection port locations of the above models may vary.

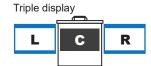
The weight is only for the single console models. It varies with accessories & options .

## < 1.2 > MRK-19 Dimension

#### **Front View**



# 1mm = 0.03937 inch



Dual display ( LH mounted )



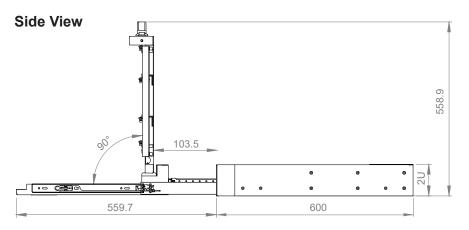
Dual display ( RH mounted )



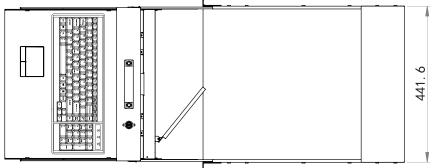
#### **Rear View**



\*\* Actual connection port locations of the above models may vary.



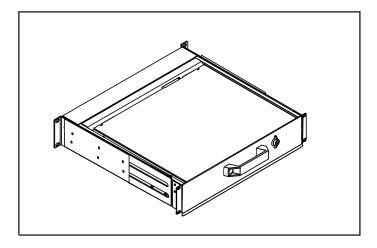
#### **Top View**



Mode	I	Display	Product Dimension (W x D x H)	Packing Dimension (W x D x H)	Net Weight	Gross Weight
	-3	Triple	441.6 x 600 x 88 mm 17.4 x 23.6 x 3.5 inch	581 x 753 x 216 mm 22.9 x 29.6 x 8.5 inch	26.7 kg 58.7 lb	32.1 kg 70.6 lb
MRK-19	-2L	Dual LH mounted	441.6 x 600 x 88 mm	581 x 753 x 216 mm	22 kg	27 kg
	-2R	Dual RH mounted	17.4 x 23.6 x 3.5 inch	22.9 x 29.6 x 8.5 inch	48.4 lb	59.4 lb

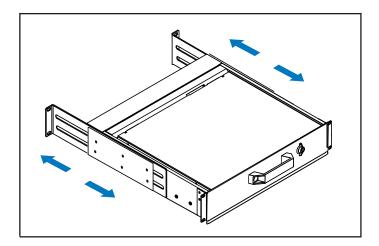
The weight is only for the single console models. It varies with accessories & options .

## < 1.3 > Installation - How to install Installation Slides



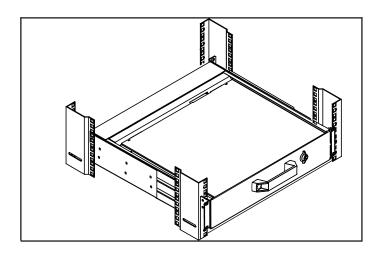


The left and right rear mounting brackets are attached to the Multi-display console drawer.





- Measure the depth of the front and rear mounting rails.
- Align each rear mounting bracket to a suitable length.
- Mounting distance : 550 790 mm





Fix the Multi-display console drawer into the rack.



## < 1.3 > Installation - How to Use the Multi-Display











## Step 1

■ Unlock the key cylinder to 3 o'clock direction.



■ Hold the handle and slide out the drawer.



■ Flip up the LCD to a suitable angle.



### < 1.3 > Installation - How to Use the



Step 5

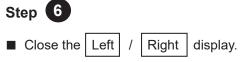












Operate the multi-display drawer.

■ Flip down the LCD completely.



- Must completely extend the drawer before returning it to the park position.
- Then pull and hold both side release buttons when pushing the drawer back to the rack.

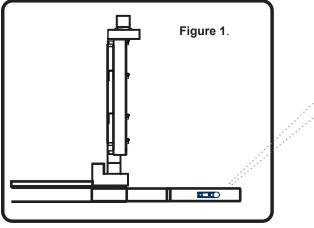


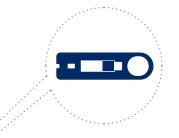
The above steps are necessary. Failure to complete these will cause damage.



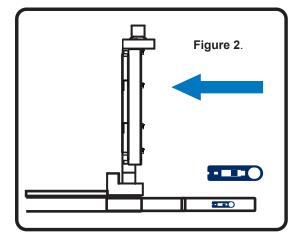
Return the multi-display drawer to park position.

### < 1.3 > Installation - How to Use the Slides

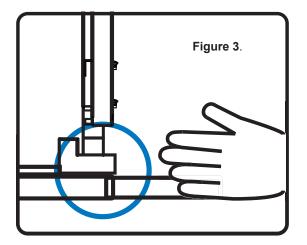




■ A purple release button is located on the front of the slide. (shown in **Figure 1**).

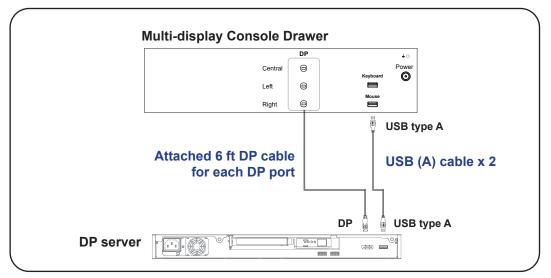


Pull and hold both side release buttons when pushing the Multi display console drawer back to the rack. (shown in Figure 2).



Caution : Keep your fingers away from the slide stop. (shown in Figure 3).

< 1.4 > MRK-K17 connection to DP Server

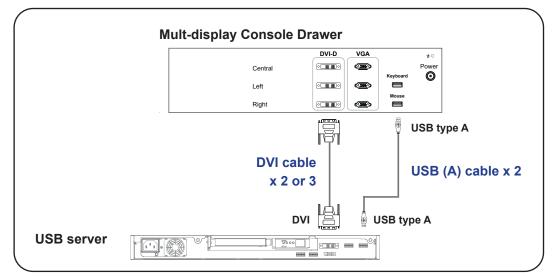


\* DP cable x 2 and USB (B) to (A) cable x 1 for dual display \*\* Actual connection port locations of the above models may vary

**Caution :** The LCD console drawer is hot-pluggable, but components of connected devices, such as the servers and KVM switch, may not be hot-pluggable. Plugging and unplugging cables while servers and KVM are powered on may cause irreversible damage to the servers, KVM and LCD console drawer. Before attempting to connect anything to the LCD console drawer, we suggest turning off the power to all devices. Apply power to connected devices again only after the LCD console drawer is receiving power. The company is not responsible for damage caused in this way.

# < 1.4 > MRK-F17 / MRK-X17 / MRK-19

connection to USB Server



\* DVI cable x 2 and USB KB cable x 1 for dual display \*\* Actual connection port locations of the above models may vary

**Caution :** The LCD console drawer is hot-pluggable, but components of connected devices, such as the servers and KVM switch, may not be hot-pluggable. Plugging and unplugging cables while servers and KVM are powered on may cause irreversible damage to the servers, KVM and LCD console drawer. Before attempting to connect anything to the LCD console drawer, we suggest turning off the power to all devices. Apply power to connected devices again only after the LCD console drawer is receiving power. The company is not responsible for damage caused in this way.

## < Part 2 > < 2.1 > Product Specifications - MRK-K17

LCD		MRK-K17
Panel	Native Resolution	3840 x 2160@60Hz
	Panel Size ( diagonal )	17.3-inch TFT color LCD
	Brightness ( cd/m² )	400
	Contrast Ratio ( typ. )	1000:1
	Colors	16.7 M, 8-bit
	Viewing Angle ( L/R/U/D )	89/89/89
	Response Time ( ms )	Max. 16
	Dot pitch ( mm )	0.0995
	Display Area ( mm )	382.12H x 214.94V
	Surface treatment	Anti-glare
	Surface hardness	3Н
	Backlight Type	LED
	MTBF ( hrs )	15,000

Video	Package	DP 1.2 / HDCP 1.3
	Option	HDMI 2.0 / HDCP 2.2

Power	Power Supply	Range	Auto-sensing 100 to 240VAC, 50 / 60Hz
	Power Consumption	Screen ON	Max. 35W
		Power saving mode	Max. 2W
		Power button OFF	Max. 1W

Compliance	EMC	FCC & CE
	Safety	CE / LVD & UKCA
	Environmental	RoHS3 & REACH / WEEE

Environmental	Operating	Temperature	0 to 55°C degree
Conditions		Humidity	10~90%, non-condensing
		Altitude	16,000 ft
	Storage / Non-operating	Temperature	-20 to 60°C degree
		Humidity	5~90%, non-condensing
		Altitude	40,000 ft
		Shock	10G acceleration (11ms duration)
		Vibration	10~300Hz 0.5G RMS random

## < 2.1 > Product Specifications - MRK-K17

Physical Specification	Product (W x D	Product (W x D x H)		441.6 x 550 x 88
Specification			inch	17.4 x 21.7 x 3.5
	Packing (W x D	)xH)	mm	580 x 683 x 197
			inch	22.8 x 26.9 x 7.8
		Net	Triple display	25.7 kg / 56.5 lb
	Weight	INCL	Dual display	21 kg / 46.2 lb
	veight	Gross	Triple display	31.1 kg / 68.4 lb
		01033	Dual display	26 kg / 57.2 lb

\* All dimensions stated are subject to change if options are selected / integrated to base model part codes

Applicable	Display Port Input	PC Signal	3840 x 2160 x 60Hz
Format			2560 x 1440 x 60Hz
			1920 x 1080 x 60Hz
			1600 x 1200 x 60Hz
			1360 x 768 x 60Hz
			1280 x 1024 x 60 / 75Hz
			1280 x 768 x 60Hz
			1024 x 768 x 60 / 70 / 75Hz
			800 x 600 x 60 / 72 / 75Hz
			720 x 400 x 70Hz
			640 x 480 x 60 / 72 / 75Hz
		Audio Signal	2ch Linear PCM
	HDMI Input	HDMI 2.0	3840 x 2160 x 60Hz
			2560 x 1440 x 60Hz
		HDMI 2.0 / 1.4	3840 x 2160 x 30Hz
			2560 x 1440 x 60Hz
			1920 x 1080 x 50 / 60Hz ( 1080p )
			1920 x 1080 x 25 / 30Hz ( 1080i )
			1280 x 720 x 50 / 60Hz ( 720p )
			720 x 480 x 50 / 60Hz ( 576p / 480p )
		Audio Signal	2ch Linear PCM

## < 2.1 > Product Specifications - MRK-F17

LCD		MRK-F17	
Panel	Native Resolution	1920 x 1080	
	Panel Size ( diagonal )	17.3"	
	Standard Brightness ( cd/m² )	300	
	High Brightness ( cd/m² ) - Option	1000	
	Contrast Ratio ( typ. )	1000:1	
	Colors	16.7 M, 8-bit	
	Viewing Angle ( L/R/U/D )	85/85/85	
	Response Time ( ms )	5.5	
	Dot pitch ( mm )	0.1989	
	Display Area ( mm )	381.888H x 214.812V	
	Surface treatment	Anti-glare, Hard-coating	
	Surface hardness	3Н	
	Backlight Type	LED	
	MTBF ( hrs )	15,000	

Video	Package	DVI-D + VGA	
	Option	HDMI 1.4 / HDCP 1.4 or DP 1.0 / HDCP 1.3	

Power	Power Supply	Range	Auto-sensing 100 to 240VAC, 50 / 60Hz
	Power	Screen ON	Max. 14W
	Consumption	Power saving mode	Max. 2W
		Power button OFF	Max. 1W

Compliance	EMC	FCC & CE
	Safety	CE / LVD & UKCA
	Environmental	RoHS3 & REACH / WEEE

Environmental	Operating	Temperature	0 to 55°C degree
Conditions		Humidity	10~90%, non-condensing
		Altitude	16,000 ft
Storage / Nor	Storage / Non-operating	Temperature	-20 to 60°C degree
		Humidity	5~90%, non-condensing
		Altitude	40,000 ft
		Shock	10G acceleration (11ms duration)
		Vibration	10~300Hz 0.5G RMS random

## < 2.1 > Product Specifications - MRK-F17

Physical	Product	mm	441.6 x 550 x 88
Specification	( W x D x H )	inch	17.4 x 21.7 x 3.5
	Packing	mm	580 x 683 x 197
	<u>(WxDxH)</u>	inch	22.8 x 26.9 x 7.8
	Net	Triple display	25.7 kg / 56.5 lb
	Weight	Dual display	21 kg / 46.2 lb
	Gross	Triple display	31.1 kg / 68.4 lb
	Weight	Dual display	26 kg / 57.2 lb

\* All dimensions stated are subject to change if options are selected / integrated to base model part codes

Applicable	DVI-D / VGA Input	PC Signal	1920 x 1080 x 60Hz
Format	Jul-Di vGA input		1680 x 1050 x 60Hz
			1440 x 900 x 60Hz
			1360 x 768 x 60Hz
			1280 x 1024 x 60Hz
			1280 x 768 x 60Hz
			1280 x 720 x 60Hz
			1152 x 864 x 60Hz
			1024 x 768 x 60Hz
			800 x 600 x 60Hz
			640 x 480 x 60Hz
		Audio Signal	2ch Linear PCM
	HDMI Input	PC Signal	Same as VGA
		HDMI 1.4	1920 x 1080 x 50 / 60Hz ( 1080p )
			1920 x 1080 x 25 / 30Hz ( 1080i )
			1280 x 720 x 50 / 60Hz ( 720p )
			720 x 480 x 50 / 60Hz ( 576p / 480p )
		Audio Signal	2ch Linear PCM
	Display port Input	PC Signal	1920 x 1080 x 60Hz
			1680 x 1050 x 60Hz
			1440 x 900 x 60Hz
			1360 x 768 x 60Hz
			1280 x 1024 x 60Hz
			1280 x 768 x 60Hz
			1280 x 720 x 60Hz
			1152 x 864 x 60Hz
			1024 x 768 x 60Hz
			800 x 600 x 60Hz
			640 x 480 x 60Hz
		Audio Signal	2ch Linear PCM
		, to all original	

## < 2.1 > Product Specifications - MRK-X17 / MRK-19

LCD		MRK-X17	MRK-19
Panel	Native Resolution	1920 x 1200	1280 x 1024
	Panel Size ( diagonal )	16.2"	19"
	Standard Brightness ( cd/m² )	300	250
	High Brightness ( cd/m² ) - Option	/	1000
	Contrast Ratio(typ.)	600:1	1000:1
	Colors	16.7 M, 8-bit	16.7 M
	Viewing Angle(L/R/U/D)	89/89/89/89	85/85/80/80
	Response Time ( ms )	30	5
	Dot pitch ( mm )	0.191	0.294
	Display Area(mm)	383.8H x 214.9V	337.92H x 270.33V
	Surface treatment	Anti-glare, Hard-coating	Haze 25%, Hard-coating
	Surface hardness	3H	3H
	Backlight Type	LED	LED
	MTBF(hrs)	20,000	30,000

Video Package		DVI-D + VGA	DVI-D + VGA
	Option	HDMI 1.4 / HDCP 1.4	HDMI 1.4 / HDCP 1.4

Power	Power Supply	Range	Auto-sensing 100 to 240VAC, 50 / 60Hz	
	Power	Screen ON	Max. 25W	Max. 22W
	Consumption	Power saving mode	Max. 2W	Max. 2W
		Power button OFF	Max. 1W	Max. 1W

Compliance	EMC	FCC & CE
	Safety	CE / LVD & UKCA
	Environmental	RoHS3 & REACH / WEEE

Environmental	Operating	Temperature	0 to 55°C degree
Conditions		Humidity	10~90%, non-condensing
		Altitude	16,000 ft
	Storage / Non-operating	Temperature	-20 to 60°C degree
		Humidity	5~90%, non-condensing
		Altitude	40,000 ft
		Shock	10G acceleration (11ms duration)
		Vibration	10~300Hz 0.5G RMS random

## < 2.1 > Product Specifications - MRK-X17 / MRK-19

Physical	Product	MRK-X17	mm	441.6 x 550 x 88
Specification	( W x D x H )	•	inch	17.4 x 21.7 x 3.5
		MRK-19	mm	441.6 x 600 x 88
			inch	17.4 x 23.6 x 7.8
	Packing	MRK-X17	mm	580 x 683 x 197
	( W x D x H )	•	inch	22.8 x 26.9 x 7.8
		MRK-19	mm	581 x 753 x 216
		•	inch	22.9 x 29.6 x 8.5
	Net	MRK-X17	Triple display	25.7 kg / 56.5 lb
	Weight	• • •	Dual display	21 kg / 46.2 lb
		MRK-19	Triple display	26.7 kg / 58.7 lb
		* * *	Dual display	22 kg / 48.4 lb
	Gross	MRK-X17	Triple display	31.1 kg / 68.4 lb
	Weight	• • •	Dual display	26 kg / 57.2 lb
		MRK-19	Triple display	32.1 kg / 70.6 lb
		•	Dual display	27 kg / 59.4 lb

\* All dimensions stated are subject to change if options are selected / integrated to base model part codes

Applicable Format	DVI-D / VGA Input	PC Signal	1920 x 1200 x 60Hz (MRK-X17 only)   1400 x 1050 x 60Hz (MRK-X17 only)   1440 x 900 x 60Hz (MRK-X17 only)   1360 x 768 x 60Hz (MRK-X17 only)   1280 x 1024 x 60 / 75Hz   1280 x 960 x 60Hz   1280 x 768 x 60 / 75Hz   1280 x 768 x 60 / 75Hz
			1152 x 864 x 75Hz 1024 x 768 x 60 / 70 / 75Hz 848 x 480 x 60Hz
			800 x 600 x 60 / 72 / 75Hz 720 x 400 x 70Hz
			640 x 480 x 60 / 72 / 75Hz 640 x 400 x 70Hz 640 x 350 x 70Hz
		Audio Signal	2ch Linear PCM
	HDMI Input	PC Signal	Same as VGA
		HDMI 1.2 / 1.4	1920 x 1080 x 50 / 60Hz ( 1080p ) (MRK-X17 only ) 1020 x 1080 x 25 / 20Hz ( 1080i )
			1920 x 1080 x 25 / 30Hz(1080i) (MRK-X17 only)
			1280 x 720 x 50 / 60Hz ( 720p )
			720 x 480 x 50 / 60Hz ( 576p / 480p )
		Audio Signal	2ch Linear PCM

## < 2.2 > Standard Keyboard / Mouse Specifications



G keyboard integrated with touchpad

	5 5 5
<u>                                     </u>	Human († 1946) 4 15 6 ← 1 +
	1 End V D C

**G** B Keyboard integrated with trackball

|--|--|--|



Key force	55 ± 5g
Travelling distance	3 ± 0.3mm
Switch life	> 10 million life cycle time
OS support	Windows / Linux / Unix / Mac OS

Supporting lay	outs					
America	United States					
EMEA	United Kingdom	Germany	France	Russia	Spain	Italy
Asia	Japan	<b>Korea</b>				



## < 2.2 > MAC Keyboard / Mouse Options



MAC keyboard integrated with touchpad

╡ ╡ ║╼║╼║╼║╼║┲║┲║┲║╌║╌║╌║╌║┲║┲║┲║╼║═║═║═	<b>5 5</b>
<u>┟╾╢╾╢━╢└╢</u>	



Mb MAC keyboard integrated with trackball

│ │ <u> </u>	
│ <u>ੵੑੑੵੑਗ਼ੑੑਸ਼ਗ਼ੑੑਸ਼ਗ਼ੑੑੑੑੑੑੑੑੑੑੑੑੑੑੑੑੑੑੑੑੑੑੑੑੑ</u>	



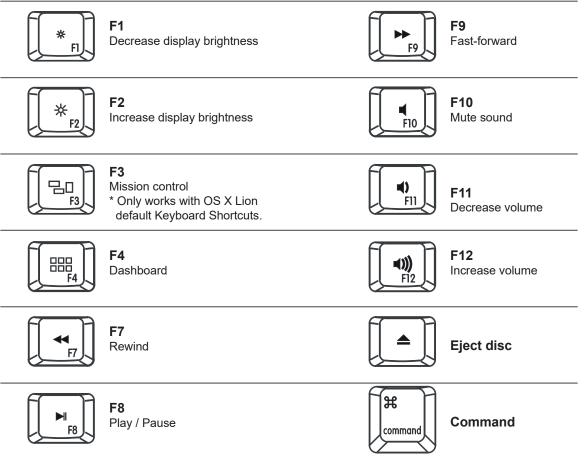
### Supporting layouts

America



## How to Use "MAC" Keyboard

#### **Keyboard Features**



## < 2.2 > SUN Keyboard / Mouse Options



S keyboard integrated with touchpad

	0 0 0 0
	En Num Help
♠emat    ∠    X    C    V     <sup>B</sup>    N     <sup>M</sup>     <sup>×</sup>     <sup>×</sup>     <sup>×</sup>     <mark>⊕emat</mark>     <sub>Bad</sub>     <sub>Call</sub>     <sup>×</sup>	Undo TFInd TOpen
	Front Dei





	<u> </u>
<u>╽┉║╨╷╢┈╷╢┈╷╢┈╷╢┈╷╢┈╷╢┈╷╢┈╷╢┈╷╢┈╷╢┈╷╢┈║╓╗║┉╖╢┉╖╢</u> ┉┉╢ ╽╶┈╢╎╴╢╒╴╢╸╢┇╴╢┇╴╢┇╴╢┇╴╢┇╴╢┇╴╢┇╴╢╏╴╢╏╴╢	
<u>, , , , , , , , , , , , , , , , , , , </u>	
	Urdo Find Open
	Copy Cut Paste
	Front

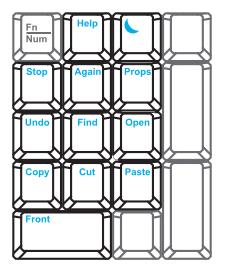


SOLARIS

### S keyboard integrated with touchpad / trackball

- Incorporates SUN keys, including Stop, Cut, Paste, Compose, Copy and Help
- 104 key notepad keyboard with full numerical pad and SUN function
- USB interface
- US layout only

### How to Use "S" Keyboard

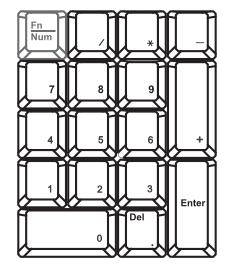


Num LED in Off mode Key pad behaves as a SUN Solar system administration command mode

Audio / Display Keys



**F9** Audio : Mute Display : Degauss



Num LED in Green mode Key pad behaves as a normal key pad mode

\* Please ask your supplier for full details

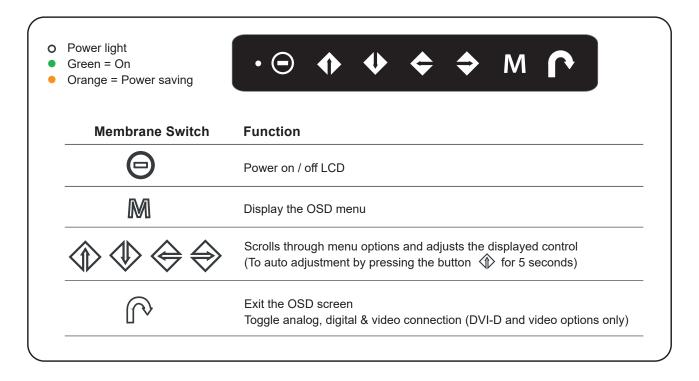


**F11** Audio : Decrease volume Display : Decrease contrast



**F12** Audio : Increase volume Display : Increase contrast

## < 2.3 > On-screen Display Operation ( OSD )



Select another video input (only available for models with multiple video input) :

- ( a ) Press the button  $\bigwedge$  to call up the on-screen video mode on top right corner.
- ( c ) Press the button M to confirm the selection

## < 2.3 > On-screen Display Operation ( OSD )

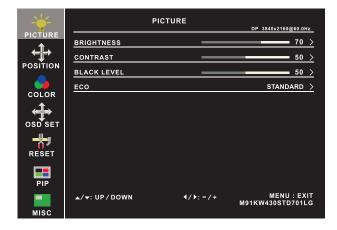
### 1 Picture

Brightness : Adjust the screen brightness

Contrast	: Adjust the difference between the image background ( black level ) and the foreground ( white level )
Black level	: Adjust background black level of the screen

- Full Screen / 4:3 / 5:4 / Pixel to Pixel

Eco : Screen in power saving mode



	F	POSITION	DP 3840x2160@60.0Hz
PICTURE	PICTURE SIZE		FULL SCREEN >
	DP VERSION		DP 1.2 >
COLOR			
OSD SET			
RESET			
PIP			
MISC	▲/▼: UP/DOWN	<b>∢/</b> ▶: −/+	MENU:EXIT M91KW430STD701LG

### 3 Color

2

Position

Picture size : Adjust the image size

DP version : Select the DP version

Color temperature	: User / Warm / Cool / 5400k mode and Red / Green / Blue color balance
Sharpness	: Adjust the image from weak to sharp
Hue	: Adjust the screen hue value
Saturation	: Adjust the saturation of the image color
Dynamic Iuminous control	: Control the dynamic brightness

#### COLOR DP 3840x2160@60.0Hz PICTURE COLOR TEMPERATURE USER >SHARPNESS <u>50 ></u> 50 > HUE COLOR 50 > SATURATION DYNAMIC LUMINOUS CONTROL OFF OSD SET RESET PIP MENU:EXIT M91KW430STD701LG -▲/▼: UP/DOWN <// >: -/+ мізс

### (4) OSD Set

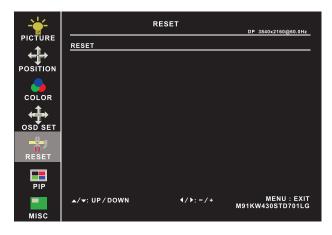
Language	: Select the language in which the OSD menu is displayed - English
OSD H-Position	: Align the screen image left or right
OSD V-Position	: Align the screen image up or down
OSD time out	: Adjust the screen timeout
OSD transparency	: Adjust the screen transparency
OSD size	: Adjust the screen size - Normal / Small
OSD rotation	: Rotate the screen - 90° / 180° / 270°

	osi	D SET	DP 3840x2160@60.0Hz
	LANGUAGE		
←₽	OSD H-POSITION		<b>50</b> >
POSITION	OSD V-POSITION		<u> </u>
COLOR	OSD TIME OUT		<u> </u>
. 🔶 .	OSD TRANSPARENCY		<b>0</b> >
	OSD SIZE		
	OSD ROTATION		OFF >
RESET			
PIP			
MISC	▲/▼: UP/DOWN	<b>∢/                                    </b>	MENU:EXIT M91KW430STD701LG

## < 2.3 > On-screen Display Operation ( OSD )

#### **5** Reset

Reset : Return the adjustment back to factory setting



#### 6 PIP (Not Applicable to F17)

PIP mode	: Enter into PIP / PBP setting - PIP MODE / PBP 2WIN ( Main screen + 1 sub screen ) / PBP 3WIN ( Main screen + 2 sub screen ) / PBP 4WIN ( Main screen + 3 sub screen ) Select the signal input of each sub screen
PIP size	: Adjust the size of the Sub screen - Small / Medium / Large / Huge
PIP position	: Adjust the position of the Sub screen - Top Left / Top Right / Bottom Left / Bottom Right
Swap	: Swap the input signal of PIP / PBP sub screen

		PIP	DP 3840x2160@60.1	0Hz
	PIP MODE		PIP MODE	>
←¦+	WINDOW2 INPUT		HDMI2	<u>&gt;</u>
POSITION	WINDOW3 INPUT		HDMI1	>
	WINDOW4 INPUT		DP	<u>&gt;</u>
	PIP SIZE		MEDIUM	>
(† † † †	PIP POSITION		TOP LEFT	>
OSD SET	SWAP			
RESET				
PIP				
MISC	▲/▼: UP/DOWN	<b>4/</b> ▶: -/+	MENU:E M91KW430STD701	

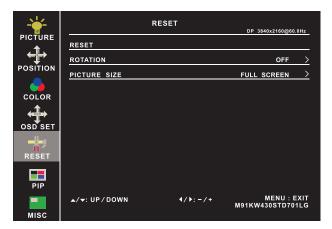
### ⑦ MISC

Signal source : Select the signal source - DP / HDMI1 / HDMI2			
Mute	: Turn off the surrounding sound		
Audio in	: Auto / Line in / DP		
Volume	: Adjust the volume of sound		
Sleep mode	: Set the off time - 10 min / 20 min / 30 min / 50 min / 60 min / 120 min / 240 min		

		мізс	DP 3840x2160@60.0Hz
	SIGNAL SOURCE		DP >
←ţ→	MUTE		OFF >
POSITION	AUDIO IN		AUTO >
	VOLUME		<u> </u>
COLOR	SLEEP MODE		OFF >
OSD SET			
RESET			
PIP			
MISC	▲/▼: UP/DOWN	<b>∢/</b> ▶: -/+	MENU:EXIT M91KW430STD701LG

### Options on Reset page (Not Applicable to F17)

- Rotation : Rotate the image in Full screen or 1:1 - 90° / 180° / 270°
- Picture size : Adjust the image size in Full screen or 1:1



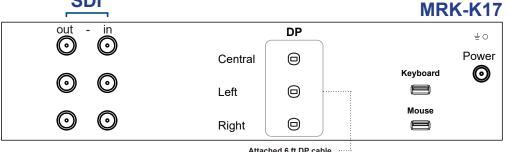
## < Part 3 > < 3.1 > Options : 3G / HD / SD-SDI input



Austin Hughes' SDI input is an ideal solution for the broadcast-grade video and high resolution CCTV market.

Designed for use with CyberView displays, a SDI input module can support up to 1080p @60Hz resolution without using additional space or power and it comes standard with a 2-year warranty.

\*\* Actual connection port locations of the following models may vary.



Attached 6 ft DP cable …… for each DP port [\_\_\_\_\_\_\_

### MRK-F17 / MRK-X17 / MRK-19

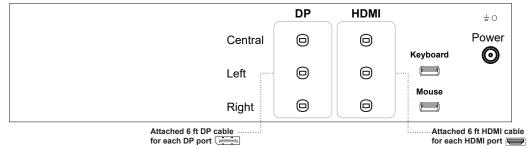
out - in	<b>\</b>	DVI-D VGA	± o
	Central		Power
00	Left	·	Keyboard 🗿
00	Right		Mouse

INPUT	3G-SDI IN	BNC x 1 / 0.8Vp-p ( 75 ohm )		
	3G-SDI OUT	BNC x 1 / Active through, equalized & relocked		
Standard Compliance	Video	SMPTE 425M / 274M / 296M / 125M ITU-R BT.656		
	Audio	SMPTE 299M / 272M-C		
Compatible Video Format	3G-SDI	1080p @60 / 50Hz, 4:2:2   1080p @30 / 25 / 24Hz, 4:4:4   1080i @60 / 50Hz, 4:4:4   720p @60 / 50Hz, 4:4:4		
	HD-SDI	1080p @30 / 25 / 24Hz, 4:2:2 1080i @60 / 50Hz, 4:2:2 720p @60 / 50Hz, 4:2:2		
	SD-SDI	480i @60Hz, 4:2:2		
	ITU-R BT.656	576i @50Hz, 4:2:2		
Compatible Audio Format	3G-SDI	48kHz, 16 / 20 / 24 bit, 2 CH, Synchronized Video		
	HD-SDI	48kHz, 16 / 20 / 24 bit, 2 CH, Synchronized Video		
	SD-SDI	48kHz, 16 / 20 / 24 bit, 2 CH, Synchronized / Asyn- chronized Video		
Max. Transmission Distance	3G-SDI	150m at 2.97Gb/s		
75 ohm coaxial cable	HD-SDI	250m at 1.485Gb/s		
	SD-SDI	480m at 270Mb/s		

### < 3.2 > Options :

MRK-K17 : HDMI 2.0 (HDCP 2.2) MRK-F17 : HDMI 1.4 (HDCP 1.4) DP 1.0 (HDCP 1.3) MRK-X17 : HDMI 1.4 (HDCP 1.4) MRK-19 : HDMI 1.4 (HDCP 1.4)

### **MRK-K17**



### **MRK-F17** with Display port

	DP	VGA		±o
Central		@ <b></b> @	Keyboard	Power
Left		6 <del>(888)</del> 3		Ŭ
Right	[]	( <b>199</b> )	Mouse	

### MRK-F17 with HDMI

	HDMI	VGA		±○
Central		( <u></u> )		Power
			Keyboard	$\odot$
Left		( <b>388</b> )		•
			Mouse	
Right		( <u>***</u> )		

### MRK-X17 / MRK-19

HDMI	VGA		÷o
	( <b>338</b> )		Power
		Keyboard	$\odot$
	6		•
		Mouse	
	( <u>**</u> )		
			Image: Second

#### \*\* Actual connection port locations of the above models may vary.

# < 3.3 > Options : Touchscreen & driver



### **Capacitive Touch screen Specification**

	MRK-K17	MRK-F17	MRK-X17		
Model	TPC-10 Multi-touch				
Technology	Projected Capacitive				
Touch Point	10				
Input Type	Fin	iger or Capacitive Sty	'lus		
Resolution		4096 x 4096			
Touch Point Accuracy		± 2 mm			
Response Speed		< 5 ms			
Activation Force	< 5 g				
Surface Hardness	6H				
Light Transmission	> 85%				
Haze	3%↓				
Durability		50 million touches			
Top Layer		1.8 mm Glass			
Bottom Layer	0.7 mm Sensor Glass				
Thickness	2.7 ± 0.1 mm				
Connector	USB				
Compatibility	Linux / Android / Windows / Mac				

### **Resistive Touch screen Specification**

	MRK-K17	MRK-F17	MRK-X17	MRK-19		
Model		TRB e-Resistive				
Technology		5-Wire F	Resistive			
Touch Point		Single				
Input Type		Finger o	or Stylus			
Resolution		2048 >	< 2048			
Response Speed		15	ms			
Activation Force		≤ 5	0 g			
Surface Hardness		3H				
Light Transmission	80% ± 3%					
Haze	8% ± 3%					
Durability		10 millior	n touches			
Top Layer		ITO	Film			
Bottom Layer	ITO Glass					
Thickness	3.2 ± 0.2 mm 2.2 ± 0.2 mm 3.2 ± 0.2 mm 2.2 ± 0.2 mm					
Connector	USB Type A					
Compatibility		Windows 7 / X	P / Vista, Linux			

■ USB touchscreen package includes 1 x 6ft USB cable, quick reference guideline and CD disc

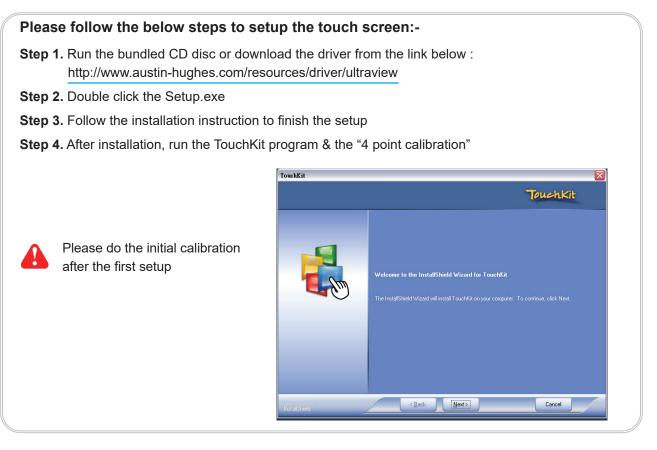
For detailed information, please refer to the attached CD disc

■ As the touchscreen unit is not made of toughened glass, please handle it carefully

#### **TPC-10** Driver

Connect the USB cable from the USB port on the LCD to a computer. The touch screen supports easy Plug-and-Play operations. There is no need to install additional drivers on the computer.

#### **TRB Driver**



## < 3.4 > Options : DC Power



Model	12V	24V	48V	125V	250V
Input rating					
Input voltage:	12-Volt	24-Volt	48-Volt	110-Volt	300-Volt
Input range:	9 ~ 18V	18 ~ 36V	36 ~ 75V	66 ~ 160V	180 ~ 425V
Input current					
- No load	50 mA	50 mA	50 mA	35 mA	10 mA
- Full load	4950 mA	2450 mA	1220 mA	749 mA	600 mA
Output rating					
Output voltage:	12-Volt	12-Volt	12-Volt	12-Volt	12-Volt
Output current:	4.16A	4.16A	4.16A	6.25A	12.5A
Efficiency	84%	85%	85%	91%	86%

#### **DC** power **MRK-K17** DP **.** ≟0 Power Central Keyboard +\_ မြို့မြို့ Left Mouse Right Attached 6 ft DP cable ..... for each DP port

### MRK-F17 / MRK-X17 / MRK-19

	DVI-D	VGA		±o
Central	∘⊞≣●	( <b>111</b> )		Power
			Keyboard	പ്പ
Left	<ul><li>■■</li></ul>	6		ୄ୲୴ୖୄ୷ୢ
			Mouse	
Right	∘■■∘	¢		

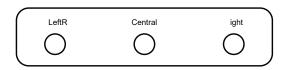
#### **\*\*\*** For DC power option :

- (1) If the unit with LCD, earthing may be required
- (2) DC option excludes AC power adapter and power cord.
- (3) Actual connection port locations of the above models may vary.

### < 3.5 > USB Keyboard & Mouse Selector

Optional USB keyboard and mouse selector allows keyboard and mouse to be shared between 2 or 3 computers.

Users can select and switch to any of the connected computers with the press of a button.



#### Selection of Keyboard & Mouse Control

- Left button : Left side LCD and computer connected
- Central button : Central LCD and computer connected
- Right button : Right side LCD and computer connected

#### Rear I/O after optional upgrade :

### **MRK-K17**

	DP	Keyboard & Mouse		use <sub>± 0</sub>
Central				Power
Left				Ø
Right	0			

### MRK-F17 / MRK-X17

	DVI-D	VGA Key	board & Mo	use <sub>≟ ☉</sub>
Central		¢		Power
Left	· <b>!!!</b>	¢)		<b>U</b>
Right	•	¢		

#### **MRK-19**

	DVI-D	VGA Keyboard & Mouse <sub>≜ ○</sub>		
Central		é		Power
Left		¢		Q
Right	• <b>!!!</b> •	e		

\*\* Actual connection port locations of the above models may vary.

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