Operator Training

Galaxy 4K series

26 June 2013 | Stefaan Verkest – version 00

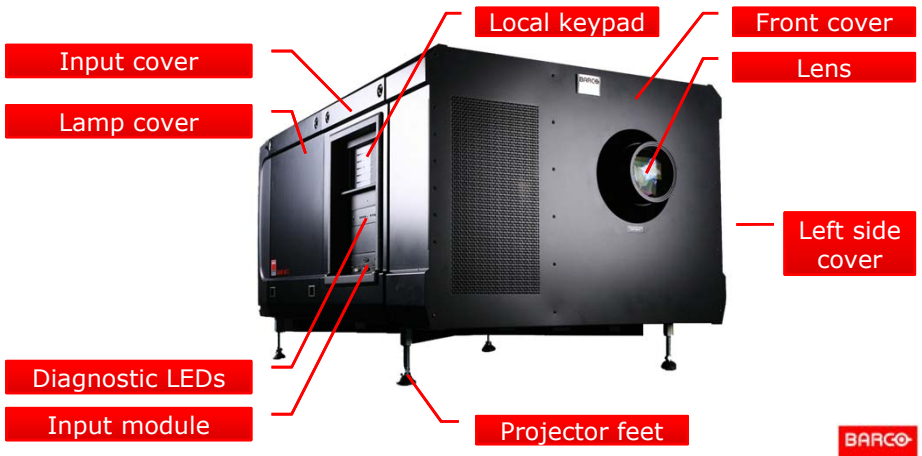
Agenda

1. Key features of the product
2. Identification of main parts
3. Powering the system on/off
4. Connections
5. Basic operation
6. Maintenance
7. Limitations and restrictions
8. Diagnostics
9. List of available documentation
10. Who to contact in case of problems

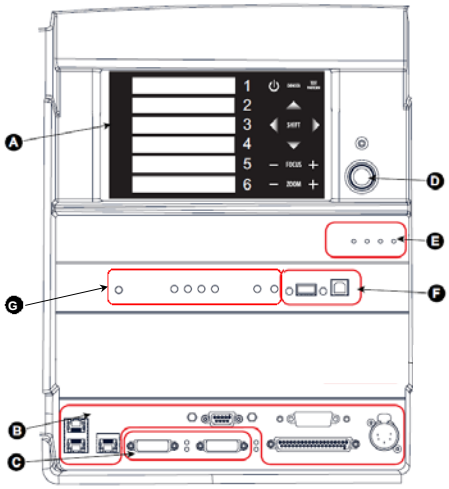
Key features of the product

- Technology: **three-chip DLP** projector
- Resolution: 4096x2160 pixels (**4K**)
- Brightness
  - Galaxy 4K-**12**: 12,000 lumens
  - Galaxy 4K-**23**: 23,000 lumens
  - Galaxy 4K-**32**: 32,000 lumens
- 3D stereo
  - **Active stereo** display is available by default
  - **Infitec stereo** (Passive or Active) optional
- **HDCP** support
- Light output control (**CLO** and linked CLO)
- **Communicator** control

Identification of the main parts (1)

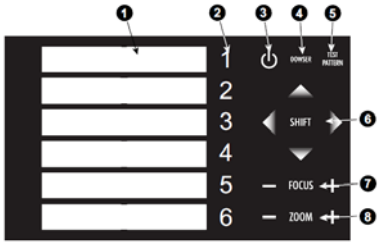


Identification of the main parts (2)



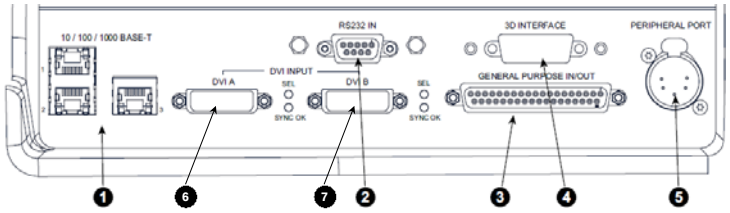
Label	Description
A	Local keypad
B	Communication ports
C	DVI input ports
D	Not used
E	Fan controller module
F	Not used
G	Diagnostic LEDs

Identification of the main parts (3)



Label	Description
1	Macro names
2	Macro buttons
3	Lamp (**ON** – **OFF**)
4	Dowser (**OPEN** – **CLOSED**)
5	Test pattern (cycle – 5 steps) – Bootup **complete**)
6	Lens shift (release the lens!)
7	Focus (release the lens!)
8	Zoom (not active)

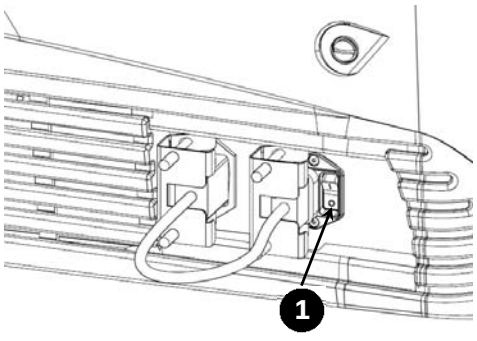
Identification of the main parts (4)



Label	Description
1	Network (RJ45)
2	Serial communication - RS232 (Sub-D9)
3	GPIO (Sub-D37)
4	3D interface – 12V (Sub-D15)

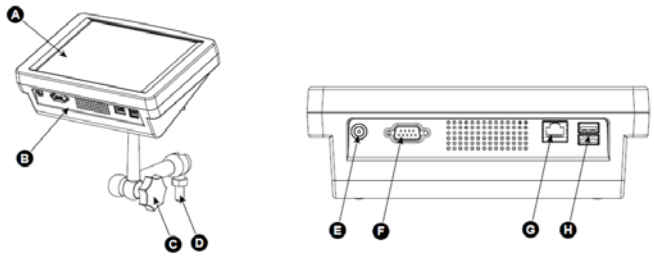
Label	Description
5	Not used
6	DVI input port A (SL-DVI)
7	DVI input port B (SL-DVI)

Identification of the main parts (5)



Label	Description
1	Mains power switch (rear side of the projector)

Identification of the main parts (6)

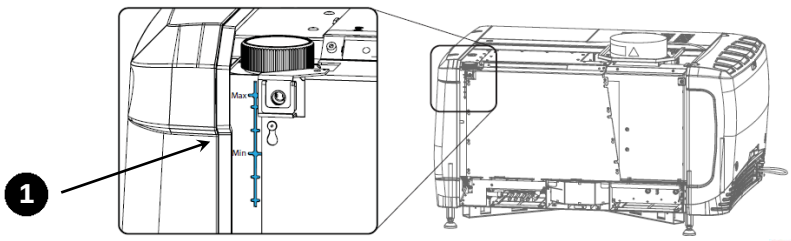


Label	Description
A	Touch screen
B	Communication panel
C	Tightening knob
D	Fixing bolt

Label	Description
E	Power input 12V 1,5A
F	RS232 (Sub-D9)
G	Network
H	Not used

Identification of the main parts (7)

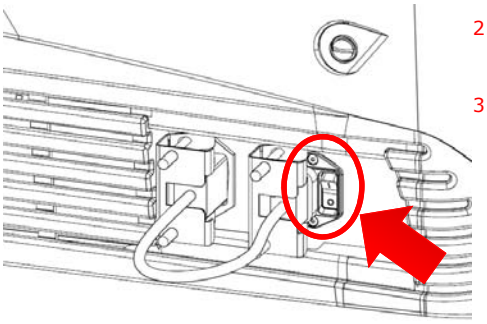
Label	Description
1	Cooling liquid circuit level indicator



Powering the system ON and OFF (1)

- **Powering ON**

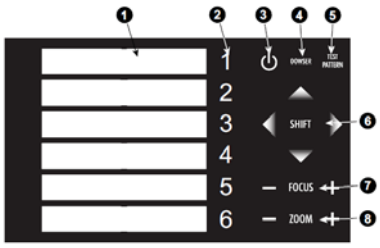
1. Plug in the power cord.
2. Flip the mains power switch to "1".
3. Wait for boot-up cycle to complete (test pattern button turns green).

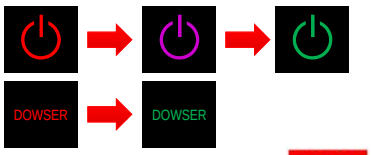


Powering the system ON and OFF (2)

- **Switching ON**
  i.e. switching on the lamp

1. Press the lamp key (see label "3").
2. Wait for the lamp to be on.
3. Make sure to open the dowser (see label "4").

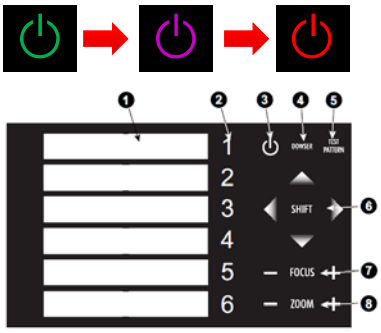




Powering the system ON and OFF (3)

- **Switching OFF**
  i.e. switching off the lamp

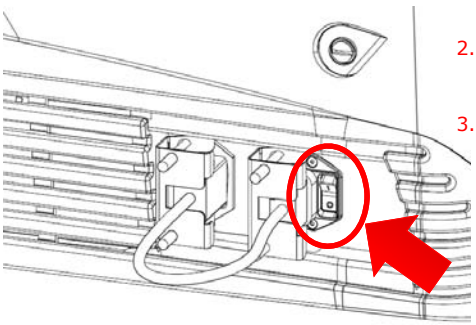
1. Press the lamp key (see label "3").
2. The lamp switches off.
3. Wait for the cooling cycle to finish (10 min).

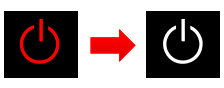


Powering the system ON and OFF (4)

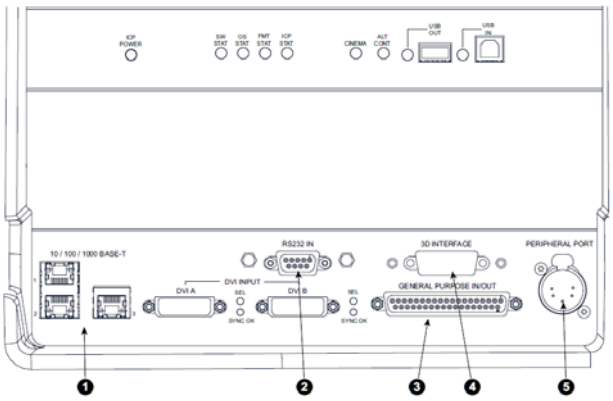
- **Powering OFF**

1. Make sure the lamp is off and cooling cycle has ended.
2. Flip the mains power switch to "0".
3. Optionally unplug in the power cord.



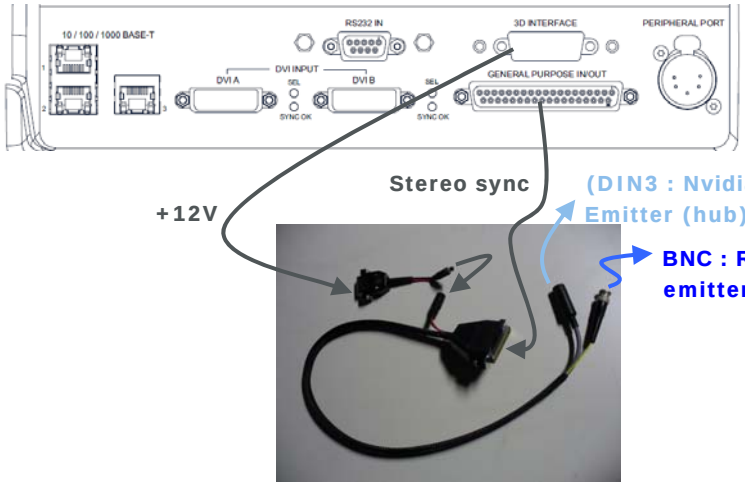


Connections (1): Projector

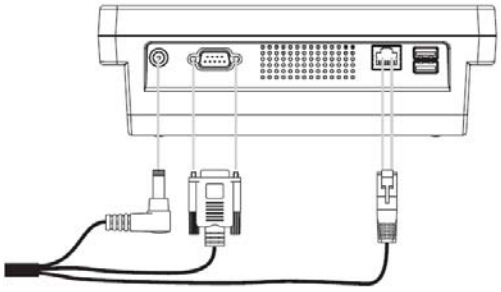


- Additional information
  - Network connectors act as network switch
  - DVI connectors do not support analog signals
  - DVI connectors are SL
  - HDCP compatible
  - DVI accepts by default:
    - 2048x2160@24Hz
    - 2048x1080@24-60Hz mono
    - 2048x1080@30Hz passive stereo

Connections (2): Stereo cable

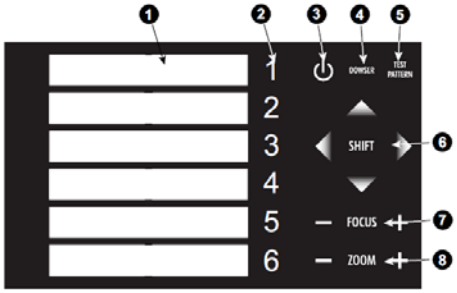


Connections (3): Touch panel



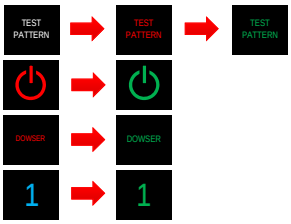
- Additional information
  - Power in: 12V - 1,5A
  - Communication via RS232 or Ethernet
  - USB ports not supported

Basic operation



- Displaying an image

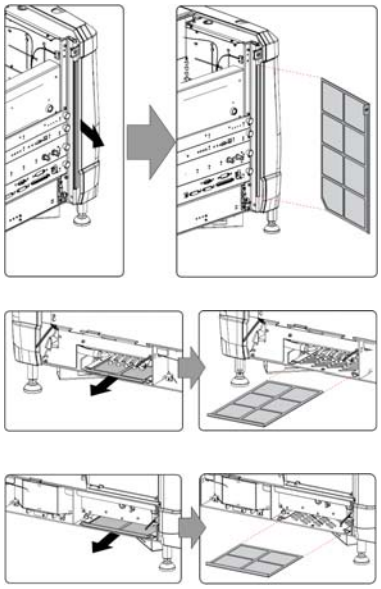
1. Power on the projector;
2. Switch on the lamp;
3. Open the dowser;
4. Select a macro;
5. Switch on the source.



Maintenance (1)

- Monthly
  - Clean **lens** if required
  - Clean the **dust filters**
    - Main filter → input cover
    - Heat exchange filter → left side cover
    - Cold mirror filter → left side cover

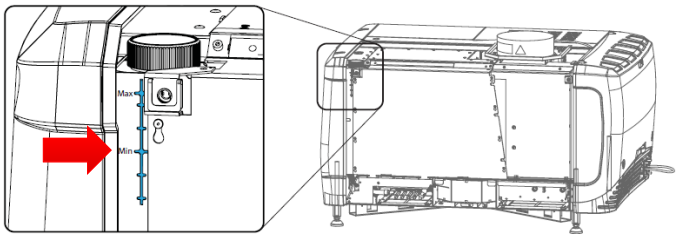
Projector must be switched off.



Maintenance (2)

- 3-monthly
  - Clean projector's vents/inlets
  - Clean projector's cabinet
  - Check level of liquid cooling circuit → if below 'Min', contact your technician.

Projector must be switced off.

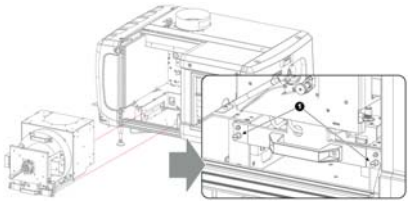


Maintenance (3)

- Yearly maintenance
  - See service manual
- 4-Yearly maintenance
  - See service manual

Maintenance (4)

- Runtime driven maintenance
  - At the end of the lamp lifetime: replace the **lamp** and realign color and brightness if required

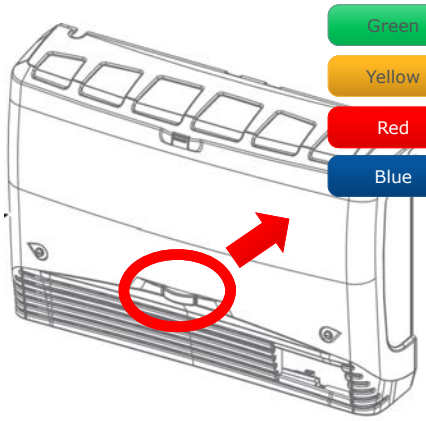


- Condition based maintenance
  - Make a **backup** (full clone) each time settings are changed
  - **Upgrade** the software if needed

Limitations and restrictions

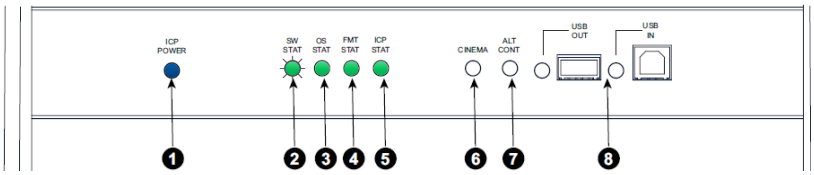
- Never ship projector with lens on.
- 10°C – 50°F < Operational temperature < 35°C – 95°F.
- Functional performance at 'Lamp on' + 30 min.
- Optimal performance at 'Lamp on' + 60 min.

Diagnostics (1): Status light



Flashing green	Booting
Green	ON, system OK
Yellow	Warning → check warning message
Red	Error → check error message - try to restart
Blue	Maintenance required → check notification message

Diagnostics (2): Processor LEDs



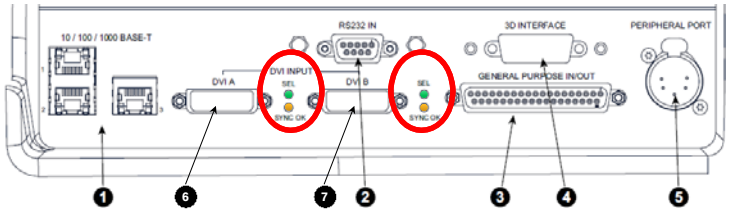
Label	Description
1	ICP powered (blue)
2	Software (green blinking)
3	Operating system (green)
4	Formatter FPGA (green)

Label	Description
5	ICP FPGA (green)
6	Not used
7	Not used
8	Not used

Diagnostics (3): Fan controller board LEDs

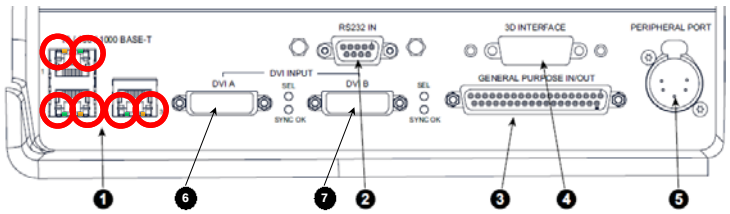
Label	Description
HARDWARE ERROR	RED in case of hardware error
++12V	GREEN if projector is powered
+24V	GREEN if projector is powered
+VTEC	GREEN if active cooling is on

Diagnostics (4): DVI LEDs



Label	Description
SEL (green)	Connector selected to be displayed
SYNC OK (yellow)	Vertical sync detected

Diagnostics (5): Network LEDs



Color	Description
YELLOW	Network detected
GREEN (blinking)	Network activity

List of available documentation

- Basic user
  - User guide: R59770705
  - Safety manual: R59770706
  - WEEE Recycling passport: R59770601
- Advanced user / administrator
  - Installation manual: R59770703 (Galaxy 4K-12/23)
  - Installation manual: R59770704 (Galaxy 4K-32)
  - Service manual: R59770707

Who to contact in case of problems (1)

- First line help:
  - Contact a certified Galaxy 4K specialist in your company
- Escalation flow:
  - Contact your local Barco Partner or Integrator
  - Contact Barco support: www.barco.com → Training & Support > Support

Who to contact in case of problems (2)

- Make sure to have the following information available:
  - Negen

www.youtube.com/BarcoTV
www.twitter.com/Barco
www.facebook.com/Barco