BT-ORBIT

ENGLISH
Operation Manual

Other languages can be downloaded from:
WWW.BRITEQ-LIGHTING.COM

CE

Version: 1.0

BRITEQ
LIGHT RESEARCH

EN - DISPOSAL OF THE DEVICE

Dispose of the unit and used batteries in an environment friendly manner according to your country regulations.

FR - DÉCLASSER L'APPAREIL

Débarrassez-vous de l'appareil et des piles usagées de manière écologique Conformément aux dispositions légales de votre pays.

NL - VERWIJDEREN VAN HET APPARAAT

Verwijder het toestel en de gebruikte batterijen op een milieuvriendelijke manier conform de in uw land geldende voorschriften.

DU - ENTSORGUNG DES GERÄTS

Entsorgen Sie das Gerät und die Batterien auf umweltfreundliche Art und Weise gemäß den Vorschriften Ihres Landes.

ES - DESHACERSE DEL APARATO

Reciclar el aparato y pilas usadas de forma ecologica conforme a las disposiciones legales de su pais.

PT - COMO DESFAZER-SE DA UNIDADE

Tente reciclar a unidade e as pilhas usadas respeitando o ambiente e em conformidade com as normas vigentes no seu país.

OPERATION MANUAL

Thank you for buying this BRITEQ product. To take full advantage of all possibilities and for your own safety, please read these operating instructions very carefully before you start using this unit.

FEATURES

This unit is radio-interference suppressed. This product meets the requirements of the current European and national guidelines. Conformity has been established and the relevant statements and documents have been deposited by the manufacturer.

- This successor of the extremely popular BT-W19L10 ZOOM is ready to serve stages, rental jobs and discotheques all over the planet!
- The 19pcs 4in1 RGBW 15W leds, combined with redesigned optics **increase the output of the original BT-W19L10 ZOOM by 65%** !!! (8400 lux @5m /10°)
- Extremely bright beam with 3 individually controlled LED-rings and 10° to 60° zoom with perfect color mixing for maximum creativity.
- Prepared for wireless DMX: just plug-in an optional WTR-DMX DONGLE ! (Briteq® order code: 4645)
- Perfect color consistency and extremely smooth dimming from 0% to maximum output!
- High speed pan/tilt movements with 16bit resolution assure dynamic show programming.
- Calibrated color macros for easy and fast show programming
- Two different 14ch DMX channel modes which are 100% compatible with the BT-W19L10 ZOOM.
- Additional 27ch DMX channel mode for full 3 LED-ring control, including all kinds of effect macros.
- Automatic X/Y re-positioning
- Neutrik PowerCON® in/outputs: easy daisy chaining of several units up to 16A.
- Neutrik 3pin & 5pin in/outputs for maximum flexibility in a professional environment
- Easy firmware updates keep your machine up-to-date at all times (optional firmware updater needed)
- The LCD-display assures easy navigation in the different setup menus
- High efficiency and low power consumption, only 290W
- Equipped with omega brackets for fast installation

BEFORE USE

- Before you start using this unit, please check if there's no transportation damage. Should there be any, do not use the device and consult your dealer first.
- **Important:** This device left our factory in perfect condition and well packaged. It is absolutely necessary for the user to strictly follow the safety instructions and warnings in this user manual. Any damage caused by mishandling is not subject to warranty. The dealer will not accept responsibility for any resulting defects or problems caused by disregarding this user manual.
- Keep this booklet in a safe place for future consultation. If you sell the fixture, be sure to add this user manual.

<u>**Check the contents:**</u>
Check that the carton contains the following items:
- Operating instructions
- BT-ORBIT
- Quick lock "Omega bracket"
- Power cable

SAFETY INSTRUCTIONS:

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: To reduce the risk of electric shock, do not remove the top cover. No user-serviceable parts inside. Refer servicing to qualified service personnel only.

The lightning flash with arrowhead symbol within the equilateral triangle is intended to alert the use or the presence of un-insulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.

The exclamation point within the equilateral triangle is intended to alert the user to the presence of important operation and maintenance (servicing) instructions in the literature accompanying this appliance.

This symbol means: indoor use only

This symbol means: Read instructions

This symbol determines: the minimum distance from lighted objects. The minimum distance between light-output and the illuminated surface must be more than 1 meters

The device is not suitable for direct mounting on normally flammable surfaces. (suitable only for mounting on non-combustible surfaces)

RISK GROUP 2
CAUTION:
Do not stare at operating lamp

CAUTION: Do not stare at operating lamp.
May be harmful to the eyes.

- To protect the environment, please try to recycle the packing material as much as possible.
- To prevent fire or shock hazard, do not expose this appliance to rain or moisture.
- To avoid condensation to be formed inside, allow the unit to adapt to the surrounding temperatures when bringing it into a warm room after transport. Condense sometimes prevents the unit from working at full performance or may even cause damages.
- This unit is for indoor use only.
- Don't place metal objects or spill liquid inside the unit. Electric shock or malfunction may result. If a foreign object enters the unit, immediately disconnect the mains power.
- Locate the fixture in a well ventilated spot, away from any flammable materials and/or liquids. The fixture must be fixed at least 50cm from surrounding walls.
- Don't cover any ventilation openings as this may result in overheating.
- Prevent use in dusty environments and clean the unit regularly.
- Keep the unit away from children.
- Inexperienced persons should not operate this device.
- Maximum safe ambient temperature is 40°C. Don't use this unit at higher ambient temperatures.
- Make sure the area below the installation place is free from unwanted persons during rigging, de-rigging and servicing.
- Allow the device about 10 minutes to cool down before to start servicing.
- Always unplug the unit when it is not used for a longer time or before to start servicing.
- The electrical installation should be carried out by qualified personal only, according to the regulations for electrical and mechanical safety in your country.
- Check that the available voltage is not higher than the one stated on the unit.
- The power cord should always be in perfect condition. Switch the unit immediately off when the power cord is squashed or damaged. It must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- Never let the power-cord come into contact with other cables!
- This fixture must be earthed in order to comply with safety regulations.
- Don't connect the unit to any dimmer pack.
- Always use an appropriate and certified safety cable when installing the unit.
- In order to prevent electric shock, do not open the cover. There are no user serviceable parts inside.
- **Never** repair a fuse or bypass the fuse holder. **Always** replace a damaged fuse with a fuse of the same type and electrical specifications!
- In the event of serious operating problems, stop using the fixture and contact your dealer immediately.
- The housing and the lenses must be replaced if they are visibly damaged.
- Please use the original packing when the device is to be transported.

• Due to safety reasons it is prohibited to make unauthorized modifications to the unit.

Important: Never look directly into the light source! Don't use the effect in the presence of persons suffering from epilepsy.

DESCRIPTION:
CONTROL PANEL:
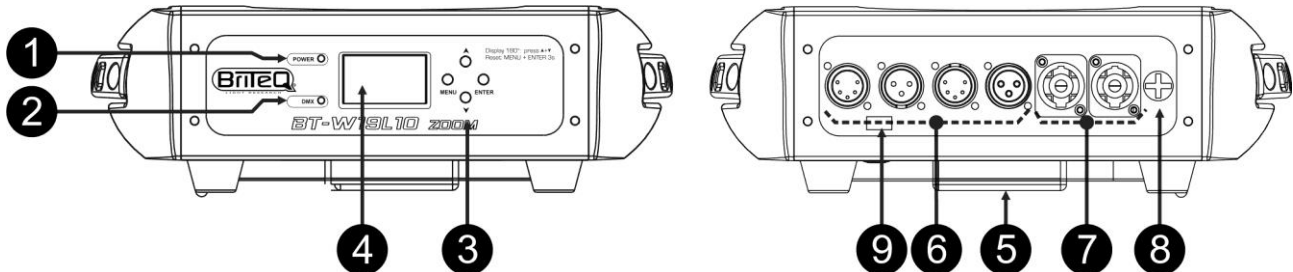
1. **POWER LED:** always on while the projector is connected to the mains.
2. **DMX LED:** is lit while the unit receives a DMX-signal. Blinks while performing a software upgrade.
3. **NAVIGATION BUTTONS:**

MENU	To enter the setup menu or return to a previous function
▼	To go forward in the menu tree
▲	To go backward in the menu tree
ENTER	To confirm the selected function

   Two **button shortcuts** make life easier for the installer:
   - **Press ▲ & ▼ buttons together for 1,5sec:** Display turns over 180°
   - **Press MENU + ENTER buttons for 3sec:** the projector resets.
4. **DISPLAY** shows the various menus and the selected functions.
5. **OMEGA CLAMP:** on the bottom you can insert the included "omega" quick clamp. Just turn the locking system over 90° to secure the clamp. Always use a safety cable for extra security!
6. **DMX IN/OUTPUTS:** used for DMX512 linking, you can use good quality balanced signal cables with 3pin or 5pin XLR-connectors.
7. **MAINS INPUT / OUTPUT:** with PowerCON® sockets, connect the supplied mains cable here, you can daisy chain several units, up to max 16A. Input and output are connected to each other without any fuse.
8. **MAINS FUSE:** this fuse only protects the electronics of the projector.
9. **M-DMX INPUT:** Please note that this USB-connector is NOT used for updates or to connect the unit to a PC! Instead this USB-connector makes it very easy to add wireless DMX to the unit! Just add the (optional) WTR-DMX DONGLE from BRITEQ® and you will get wireless DMX! Moreover you will be able to connect other DMX-controlled equipment to the DMX-output so you can share the wireless DMX function with all connected units! No extra settings to be made in the setup menu, just follow the procedure in the user manual supplied with the WTR-DMX DONGLE from BRITEQ®. *The separate WTR-DMX DONGLE is available from WWW.BRITEQ-LIGHTING.COM (order code: 4645)*

Hint: Please check our website for special cable assemblies that contain both power (3x1.5mm² with Neutrik PowerCON®) and balanced signal (XLR 3pin) in one cable, very convenient!

SETUP MENU:
• Press the **MENU** button to enter the setup menu.
• Use **▲ / ▼** buttons to browse the submenu(s) and/or select functions, change the value(s).
• Always press the **ENTER** button to confirm.
• To return to a previous menu, always use the MENU button.
Note 1: After 60 seconds the display will automatically return to normal mode without any change.
Note 2: The grey colored options in the setup menu are the default settings.

DMX Functions
This submenu contains all DMX-related settings.
• Press the MENU button and select the **"DMX Functions"** submenu.

DMX Address

Used to set the starting address in a DMX setup.

- Select "**DMX address**" and press ENTER.
- Use ▼ / ▲ buttons to change the DMX512 address.
- Press the ENTER button to save.

To return without any change or go to a previous menu, press the MENU button.

DMX Channel Mode

Used to select the desired channel mode.

- Select "**DMX Channel Mode**" and press ENTER
- Use ▼ / ▲ buttons to select the desired DMX channel mode.
- Press the ENTER button to save.

To return without any change or go to a previous menu, press the MENU button.

View DMX Value

- Select "**View DMX Value**" and press ENTER.
- The display now shows the DMX-values for the different channels.

To return to a previous menu, press the MENU button or after 60 seconds the display will automatically return to normal mode.

Fixture Settings

This submenu contains specific fixture settings.

- Press the MENU button and select the **"Fixture Settings"** submenu.

Pan Inverse

No: Panning movement is not inverted.
Yes: Panning movement is inverted.

- Select "**Pan Inverse**" and press ENTER
- Use ▼ / ▲ buttons to select Yes or No.
- Press the ENTER button to save.

To return without any change or go to a previous menu, press the MENU button.

Tilt Inverse

No: Tilt movement is not inverted.
Yes: Tilt movement is inverted.

- Select "**Tilt Inverse**" and press ENTER
- Use ▼ / ▲ buttons to select Yes or No.
- Press the ENTER button to save.

To return without any change or go to a previous menu, press the MENU button.
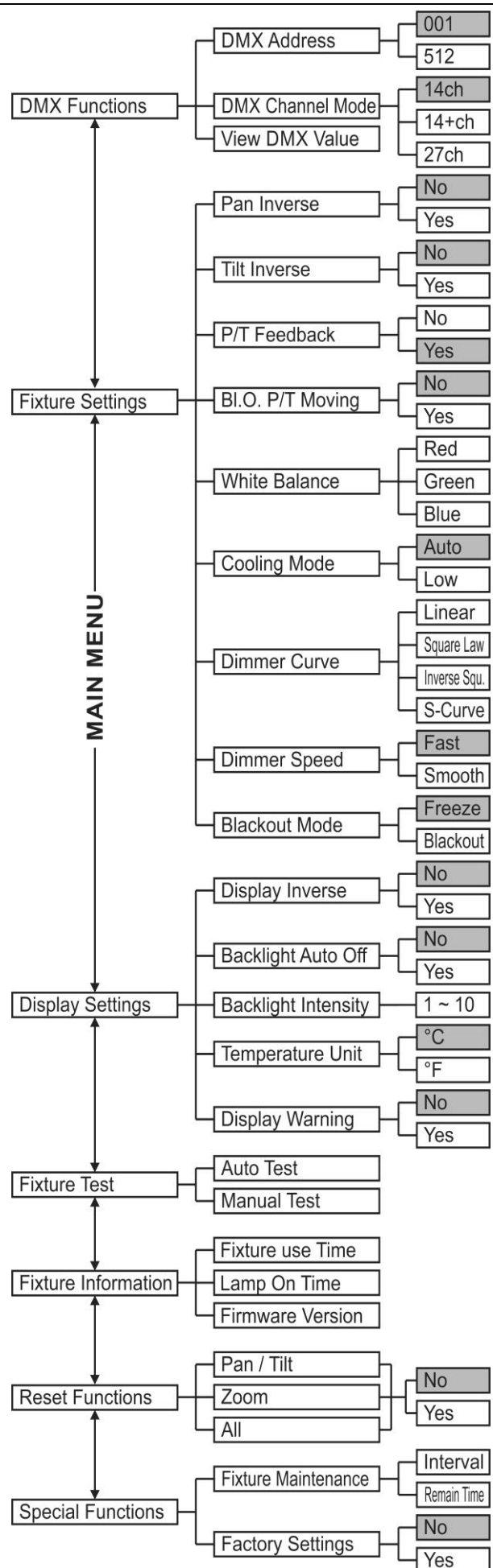
P/T Feedback

While touching the head of the projector, the pan/tilt positioning can be disturbed and not in sync with the other machines. P/T Feedback can automatically correct such issues.

No: Pan/Tilt are not automatically corrected.
Yes: Pan/Tilt are automatically corrected.

- Select "**P/T Feedback**" and press ENTER
- Use ▼ / ▲ buttons to select Yes or No.
- Press the ENTER button to save.

To return without any change or go to a previous menu, press the MENU button.

Menu structure (MAIN MENU)

Menu	Submenu	Options
DMX Functions	DMX Address	001 / 512
	DMX Channel Mode	14ch / 14+ch / 27ch
	View DMX Value	
Fixture Settings	Pan Inverse	No / Yes
	Tilt Inverse	No / Yes
	P/T Feedback	No / Yes
	Bl.O. P/T Moving	No / Yes
	White Balance	Red / Green / Blue
	Cooling Mode	Auto / Low
	Dimmer Curve	Linear / Square Law / Inverse Squ. / S-Curve
	Dimmer Speed	Fast / Smooth
	Blackout Mode	Freeze / Blackout
Display Settings	Display Inverse	No / Yes
	Backlight Auto Off	No / Yes
	Backlight Intensity	1 ~ 10
	Temperature Unit	°C / °F
	Display Warning	No / Yes
Fixture Test	Auto Test	
	Manual Test	
Fixture Information	Fixture use Time	
	Lamp On Time	
	Firmware Version	
Reset Functions	Pan / Tilt	No / Yes
	Zoom	
	All	
Special Functions	Fixture Maintenance	Interval / Remain Time
	Factory Settings	No / Yes

Bl.O. P/T Moving
"Blackout while Pan/tilt are moving": while pan/tilt positions are changing the projector can cut off the output to obtain a special effect.
No: output stays on during pan/tilt movements.
Yes: output shuts off during pan/tilt movements.
- Select "**Bl.O. P/T Moving**" and press ENTER
- Use ▼ / ▲ buttons to select Yes or No.
- Press the ENTER button to save.
To return without any change or go to a previous menu, press the MENU button.

White balance
Allows the user to fine tune the three colors to achieve the perfect white
- Select "**White balance**" and press ENTER: the head will be positioned to light up the ceiling in white color.
- The display shows the actual values for RED, GREEN and BLUE. (by default all values are set to 255)
- Use ▼ / ▲ buttons to select a color and press ENTER.
- Use ▼ / ▲ buttons to adapt the values.
- Press the ENTER button to save.
- When all values are set, press MENU to return to the previous menu.

Cooling Mode
By default this option is set to "auto" but in some cases (like theater) the projector should be as quite as possible. In those cases you can set cooling mode to "low" to reduce fan noise. In that case, when the unit becomes too hot, the fan speed will not increase but the light output will be reduces to protect the LEDs against excessive temperatures.
**Auto: Fan is temperature controlled, speed increases with higher temperatures.**
Low: Fan turns at low speed, output decreases with higher temperatures.
- Select "**Cooling Mode**" and press ENTER
- Use ▼ / ▲ buttons to select Auto or Low.
- Press the ENTER button to save.
To return without any change or go to a previous menu, press the MENU button.

Dimmer Curve
This function provides four dimming options to choose from:
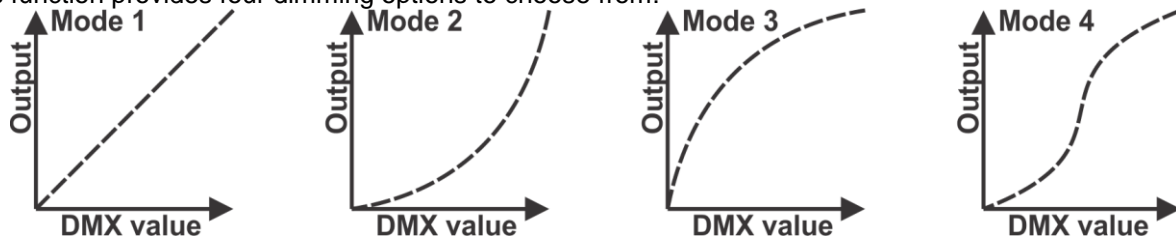
   Mode 1 (LINEAR): light output varies linearly with the DMX value
   Mode 2 (SQUARE LAW): light output can be adjusted more accurately for low DMX values
   Mode 3 (INVERSE SQUARE LAW): light output can be adjusted more accurately for high DMX values.
   Mode 4 (S-CURVE): light output can be adjusted more accurately for both high and low DMX values.
- Select "**Dimmer Curve**" and press ENTER
- Use ▼ / ▲ buttons to select one of the dimmer curves.
- Press the ENTER button to save.
To return without any change or go to a previous menu, press the MENU button.

Dimmer Speed
Allows you to select FAST dimming or SMOOTH dimming
- **FAST:** dimming will be instantly and reactive but you could notice some small steps in the dimmer curve.
- **SMOOTH:** dimming will be very precise, without any dimmer steps but dimmer speed is slower.
To return without any change or go to a previous menu, press the MENU button.
Remark: Dimmer speed can also be set via DMX (control settings: CH6 / CH8). Please note that settings made via DMX overrule the setting in the setup menu.

Blackout Mode
Determines how the projector should behave when the DMX-signal is lost.
- **Blackout mode:** when no DMX-signal is detected, the unit goes in blackout and waits for the DMX-signal.
- **Freeze mode:** when no DMX-signal is detected, the unit freezes with the latest dmx values received and waits for the DMX-signal.
- Select "**Blackout Mode**" and press ENTER
- Use ▼ / ▲ buttons to select Freeze or Blackout.
- Press the ENTER button to save.

To return without any change or go to a previous menu, press the MENU button.

Display Settings
This submenu contains all display related settings.
- Press the MENU button and select the **"Display Settings"** submenu.

Display Inverse
The projector can be fixed/used in upward position or hung in upside-down position. To make reading of the display easier, you can turn it over 180°.
No: Display readable while the projector is in upward position.
Yes: Display readable while the projector is in upside-down position.
- Select "**Display Inverse**" and press ENTER
- Use ▼ / ▲ buttons to select Yes or No.
- Press the ENTER button to save.

To return without any change or go to a previous menu, press the MENU button.
   ⇨   *Notice an alternative shortcut for this function: press the ▲ & ▼ buttons together for 1,5sec.*

Backlight Auto Off
No: display is always lit.
Yes: display turns dark when not used for some time.
- Select "**Backlight Auto Off**" and press ENTER.
- Use ▼ / ▲ buttons to select Yes or No.
- Press the ENTER button to save.

To return without any change or go to a previous menu, press the MENU button.

Backlight Intensity
Used to set the intensity of the display backlight.
- Select "**Backlight Intensity**" and press ENTER.
- Use ▼ / ▲ buttons to change the intensity between 1 and 10.
- Press the ENTER button to save.

To return without any change or go to a previous menu, press the MENU button.

Temperature Unit
The display can show temperature either in °C (Celcius) or °F (Fahrenheit)
°C: Temperature is shown in Celcius.
°F: Temperature is shown in Fahrenheit.
- Select "**Temperature Unit**" and press ENTER.
- Use ▼ / ▲ buttons to select °C or °F.
- Press the ENTER button to save.

To return without any change or go to a previous menu, press the MENU button.

Display Warning
You can choose if the projector warns you that an error occurred.
No: display only shows the error discretely
Yes: the display starts blinking while the error is shown on the display.
- Select "**Display Warning**" and press ENTER.
- Use ▼ / ▲ buttons to select Yes or No.
- Press the ENTER button to save.

To return without any change or go to a previous menu, press the MENU button.

Fixture Test

This submenu contains some features to quickly test the unit without the need for a controller.

- Press the MENU button and select the **"Fixture Test"** submenu.

Auto Test

The uit performs an automatic test where all features are shown.

- Select "**Auto Test**" and press ENTER.
- The projector starts the automatic test function and returns to normal operation after the test.

To return to a previous menu or stop the test, press the MENU button.

Manual Test

You can check all functions one by one without the need for a DMX-controller.

- Select "**Manual Test**" and press ENTER.
- The display shows a list with all functions that can be tested.
- Use ▼ / ▲ buttons to browse the list and press ENTER to select a function.
- Use ▼ / ▲ buttons to adapt the values: 000 to 255.
- Press MENU to return to the list and choose another function to test.

To stop the test, press the MENU button until you're in the main menu.

Fixture Information

This submenu contains some useful information for servicing.

- Press the MENU button and select the **"Fixture Information"** submenu.
- The display shows the following information:
    - **Fixture use Time:** shows how many hours the fixture was in use. (reset not possible)
    - **Lamp on Time :** shows how many hours the leds have been lit
    - **Firmware Version:** press MENU to show the software version for the different processors in the unit.

To return, press the MENU button until you're in the main menu.

Reset Functions

This submenu is used to reset the unit or parts of the unit.

- Press the MENU button and select the **"Reset Functions"** submenu.
- The display shows a list with 3 functions that can be rest: Pan/tilt, Zoom, All.
- Use ▼ / ▲ buttons to browse the list and press ENTER to select a function.
- Use ▼ / ▲ buttons to confirm your choice: Yes or No.
- Press MENU to return to the list and choose another function.

To return, press the MENU button until you're in the main menu.

   ⇨ *Notice an alternative shortcut for this function: press the MENU & ENTER buttons together for 3seconds.*

Special Functions

This submenu contains some useful functions for servicing.

- Press the MENU button and select the **"Special Functions"** submenu.

Fixture Maintenance

Used to set/reset the interval time between successive maintenances.

- Select "**Fixture Maintenance**" and press ENTER.
- Two options are available:
    - **Interval:** here you can set the desired time between 2 maintenances.
        - Use ▼ / ▲ buttons to change the interval between 10 and 300hours.
        - Press ENTER to confirm
    - **Remain Time:** shows how many hours are still left before the next maintenance.
        - When maintenance is done, use ▼ / ▲ buttons to reset the timer.
        - Press ENTER to confirm
- To return, press the MENU button until you're in the main menu.

Factory Settings
This is your emergency exit if you really messed up the settings: just return to factory settings.
No: keep the current settings unchanged.
Yes: return to factory settings, personal settings are lost.
- Select "**Factory Settings**" and press ENTER
- Use ▼ / ▲ buttons to select Yes or No.
- Press the ENTER button to save.

To return without any change or go to a previous menu, press the MENU button.

OFFSET ADJUST:

Used to adjust the home position of pan / tilt and zoom so all units are perfectly aligned:
- If you're not already in the setup menu, just press the MENU button shortly to enter the setup menu
- Now press the ENTER button for at least 5 seconds to go into offset mode.
- Use ▼ / ▲ buttons to select one of the available options.
- Press the ENTER button, the display shows the actual offset value.
- Use ▼ / ▲ buttons to adjust the offset values
- Press the ENTER button to confirm your setting or press the MENU button to leave without saving the value.

To return to normal working mode: press the MENU button.

Offset Menu	Pan	-128 ~ 127
	Tilt	-128 ~ 127
	Zoom	0 ~ 255
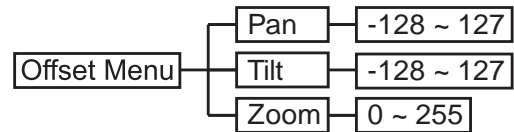
OVERHEAD RIGGING

- **Important:** **The installation must be carried out by qualified service personal only. Improper installation can result in serious injuries and/or damage to property. Overhead rigging requires extensive experience! Working load limits should be respected, certified installation materials should be used, the installed device should be inspected regularly for safety.**
- Make sure the area below the installation place is free from unwanted persons during rigging, de-rigging and servicing.
- Locate the fixture in a well ventilated spot, far away from any flammable materials and/or liquids. The fixture must be fixed **at least 50cm** from surrounding walls.
- The device should be installed out of reach of people and outside areas where persons may walk by or be seated.
- Before rigging make sure that the installation area can hold a minimum point load of 10times the device's weight.
- Always use a certified safety cable (number 3 on the picture) that can hold 12 times the weight of the device when installing the unit. This secondary safety attachment should be installed in a way that no part of the installation can drop more than 20cm if the main attachment fails.
- The device should be well fixed; a free-swinging mounting is dangerous and may not be considered!
- Don't cover any ventilation openings as this may result in overheating.
- The operator has to make sure that the safety-relating and machine-technical installations are approved by an expert before using them for the first time. The installations should be inspected every year by a skilled person to be sure that safety is still optimal.

ELECTRICAL INSTALLATION + ADDRESSING

⚠️ **Important:** **The electrical installation should be carried out by qualified personal only, according to the regulations for electrical and mechanical safety in your country.**

Every time you turn the unit on, it will show a welcome message on the display and move all the motors to their 'home' position and you may hear some noises for about 20 seconds. After that the unit will be ready to receive DMX signal or run the built-in programs.

Electrical installation for several units on a DMX line:

The DMX-protocol is a widely used high speed signal to control intelligent light equipment. You need to "daisy chain" your DMX controller and all the connected light effects with a good quality XLR M/F balanced cable. To prevent strange behavior of the light effects, due to interferences, you must use a 90Ω to 120Ω terminator at the end of the chain. Never use Y-cables to split the DMX-line, instead use a good quality DMX splitter!
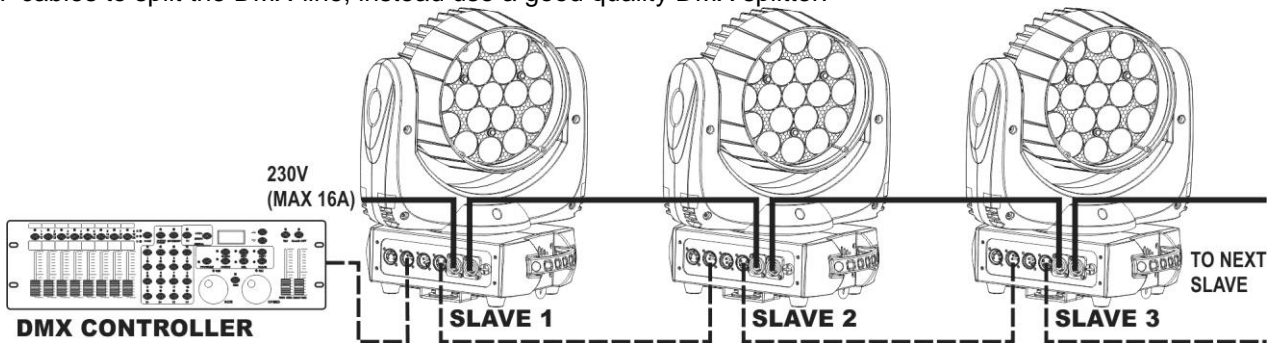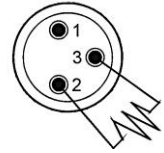
Each unit in the chain must have its proper starting address so it knows which commands from the controller it has to decode.

HOW TO SET THE RIGHT STARTING ADDRESS:

Refer to the previous chapter (DMX-512 address setting) to learn how to set the starting address on this unit. The starting address of each unit is very important. Unfortunately it is impossible to tell you in this user manual which starting addresses you have to use because this completely depends on the controller you will use… So please refer to the user manual of your DMX-controller to find out which starting addresses you must set.

DMX-CONFIGURATION:

The projector has 3 different DMX-modes, 14, 14+ and 27 channels.

14CH CHANNEL MODE:

CHANNEL	VALUE	FUNCTION
1	000 - 255	**Pan**
2	000 - 255	**Pan Fine (Least significant bit)**
3	000 - 255	**Tilt**
4	000 - 255	**Tilt Fine (Least significant bit)**
5	000 - 255	**Pan / Tilt Speed (000 = fast ~ 255 = slow)**
6		**Fixture control settings**
	000 - 009	No function
	010 - 014	Reset entire fixture (3s delay)
	015 - 039	No function
	040 - 044	Pan and tilt speed = NORM
	045 - 049	Pan and tilt speed = FAST
	050 - 054	Pan and tilt speed = SLOW
	055 - 079	No function
	080 - 084	Fast Dimming

	085 - 089	No function
	090 - 094	Smooth Dimming
	095 - 249	No function
	250 - 255	Switch backlight display ON
7	000 - 255	**Master Dimmer (0 to 100%)**
		Electronic shutter effect
	000 - 019	Shutter closed
	020 - 024	Shutter open
	025 - 064	Strobe 1 (fast → slow)
	065 - 069	Shutter open
	070 - 084	Strobe 2: opening pulse (fast → slow)
	085 - 089	Shutter open
	090 - 104	Strobe 3: closing pulse (fast → slow)
	105 - 109	Shutter open
	110 - 124	Strobe 4: random strobe (fast → slow)
	125 - 129	Shutter open
8	130 - 144	Strobe 5: random opening pulse (fast → slow)
	145 - 149	Shutter open
	150 - 164	Strobe 6: random closing pulse (fast → slow)
	165 - 169	Shutter open
	170 - 184	Strobe 7: burst pulse (fast → slow)
	185 - 189	Shutter open
	190 - 204	Strobe 8: random burst pulse (fast → slow)
	205 - 209	Shutter open
	210 - 224	Strobe 9: sine wave (fast → slow)
	225 - 229	Shutter open
	230 - 244	Strobe 10: burst (fast → slow)
	245 - 255	Shutter open
9	000 - 255	**Red (0% to 100%)**
10	000 - 255	**Green (0% to 100%)**
11	000 - 255	**Blue (0% to 100%)**
12	000 - 255	**White (0% to 100%)**
		Color wheel effect
	000 - 009	RGB color mixing using channels 9 to 12
	010 - 014	Moroccan pink
	015 - 019	Pink
	020 - 024	Special rose pink
	025 - 029	Follies pink
	030 - 034	Fuchsia pink
	035 - 039	Surprise pink
	040 - 044	Congo Blue
	045 - 049	Tokyo Blue
	050 - 054	Deep Blue
13	055 - 059	Just Blue
	060 - 064	Medium Blue
	065 - 069	Double CT Blue
	070 - 074	Slate Blue
	075 - 079	Full CT Blue
	080 - 084	Half CT Blue
	085 - 089	Steel Blue
	090 - 094	Lighter Blue

	095 - 099	Light Blue
	100 - 104	Medium Blue Green
	105 - 109	Dark Green
	110 - 114	Primary Green
	115 - 119	Moss Green
	120 - 124	Fern Green
	125 - 129	JAS Green
	130 - 134	Lime Green
	135 - 139	Spring Yellow
	140 - 144	Deep Amber
	145 - 149	Chrome Orange
	150 - 154	Orange
	155 - 159	Gold Amber
	160 - 164	Millennium Gold
	165 - 169	Deep Golden Amber
	170 - 174	Flame Red
	175 - 179	Open
		Color wheel rotation effect
	180 - 201	Clockwise, fast → slow
	202 - 207	Stop (this will stop wherever the color is at the time)
	208 - 229	Counter-clockwise, slow → fast
	230 - 234	Open
		Random color
	235 - 239	Fast
	240 - 244	Medium
	245 - 249	Slow
	250 - 255	Open
14	000 - 255	**Zoom (000 = 60° ~ 255 = 10°) beam**

14+CH CHANNEL MODE:

CHANNEL	VALUE	FUNCTION
		Electronic shutter effect
	000 - 019	Shutter closed
	020 - 024	Shutter open
	025 - 064	Strobe 1 (fast → slow)
	065 - 069	Shutter open
	070 - 084	Strobe 2: opening pulse (fast → slow)
	085 - 089	Shutter open
	090 - 104	Strobe 3: closing pulse (fast → slow)
	105 - 109	Shutter open
1	110 - 124	Strobe 4: random strobe (fast → slow)
	125 - 129	Shutter open
	130 - 144	Strobe 5: random opening pulse (fast → slow)
	145 - 149	Shutter open
	150 - 164	Strobe 6: random closing pulse (fast → slow)
	165 - 169	Shutter open
	170 - 184	Strobe 7: burst pulse (fast → slow)
	185 - 189	Shutter open
	190 - 204	Strobe 8: random burst pulse (fast → slow)
	205 - 209	Shutter open
	210 - 224	Strobe 9: sine wave (fast → slow)

	225 - 229	Shutter open
	230 - 244	Strobe 10: burst (fast → slow)
	245 - 255	Shutter open
2	000 - 255	**Master Dimmer (0 to 100%)**
3	000 - 255	**Zoom (000 = 60° ~ 255 = 10°) beam**
4	000 - 255	**Pan**
5	000 - 255	**Pan Fine (Least significant bit)**
6	000 - 255	**Tilt**
7	000 - 255	**Tilt Fine (Least significant bit)**
8		**Fixture control settings**
	000 - 009	No function
	010 - 014	Reset entire fixture (3s delay)
	015 - 039	No function
	040 - 044	Pan and tilt speed = NORM
	045 - 049	Pan and tilt speed = FAST
	050 - 054	Pan and tilt speed = SLOW
	055 - 079	No function
	080 - 084	Fast Dimming
	085 - 089	No function
	090 - 094	Smooth Dimming
	095 - 249	No function
	250 - 255	Switch display backlight on
9		**Color wheel effect**
	000 - 009	RGB color mixing using channels 10 to 13
	010 - 014	Moroccan pink
	015 - 019	Pink
	020 - 024	Special rose pink
	025 - 029	Follies pink
	030 - 034	Fuchsia pink
	035 - 039	Surprise pink
	040 - 044	Congo Blue
	045 - 049	Tokyo Blue
	050 - 054	Deep Blue
	055 - 059	Just Blue
	060 - 064	Medium Blue
	065 - 069	Double CT Blue
	070 - 074	Slate Blue
	075 - 079	Full CT Blue
	080 - 084	Half CT Blue
	085 - 089	Steel Blue
	090 - 094	Lighter Blue
	095 - 099	Light Blue
	100 - 104	Medium Blue Green
	105 - 109	Dark Green
	110 - 114	Primary Green
	115 - 119	Moss Green
	120 - 124	Fern Green
	125 - 129	JAS Green
	130 - 134	Lime Green
	135 - 139	Spring Yellow

	140 - 144	Deep Amber
	145 - 149	Chrome Orange
	150 - 154	Orange
	155 - 159	Gold Amber
	160 - 164	Millennium Gold
	165 - 169	Deep Golden Amber
	170 - 174	Flame Red
	175 - 179	Open
		Color wheel rotation effect
	180 - 201	Clockwise, fast → slow
	202 - 207	Stop (this will stop wherever the color is at the time)
	208 - 229	Counter-clockwise, slow → fast
	230 - 234	Open
		Random color
	235 - 239	Fast
	240 - 244	Medium
	245 - 249	Slow
	250 - 255	Open
10	000 - 255	**Red 0 to 100%**
11	000 - 255	**Green 0 to 100%**
12	000 - 255	**Blue 0 to 100%**
13	000 - 255	**White 0 to 100%**
14		**CTC – Color Temperature Control**
	000 - 019	CTC not active
	020 - 255	CTC from 10000K to 2500K

27CH CHANNEL MODE:

CHANNEL	VALUE	FUNCTION
1	000 - 255	**Pan**
2	000 - 255	**Pan Fine (Least significant bit)**
3	000 - 255	**Tilt**
4	000 - 255	**Tilt Fine (Least significant bit)**
5	000 – 255	**Pan/Tilt SPEED** (fast → slow)
6		**Fixture control settings**
	000 - 009	No function
	010 - 014	Reset entire fixture (3s delay)
	015 - 039	No function
	040 – 044	Pan and tilt speed = NORM
	045 – 049	Pan and tilt speed = FAST
	050 – 054	Pan and tilt speed = SLOW
	055 - 079	No function
	080 - 084	Fast dimming
	085 - 089	No function
	090 - 094	Smooth dimming
	095 - 249	No function
	250 - 255	Switch backlight display ON
7	000 - 255	**Master Dimmer (0 to 100%)**

		Electronic shutter effect
8	000 - 019	Shutter closed
	020 - 024	Shutter open
	025 - 064	Strobe 1 (fast → slow)
	065 - 069	Shutter open
	070 - 084	Strobe 2: opening pulse (fast → slow)
	085 - 089	Shutter open
	090 - 104	Strobe 3: closing pulse (fast → slow)
	105 - 109	Shutter open
	110 - 124	Strobe 4: random strobe (fast → slow)
	125 - 129	Shutter open
	130 - 144	Strobe 5: random opening pulse (fast → slow)
	145 - 149	Shutter open
	150 - 164	Strobe 6: random closing pulse (fast → slow)
	165 - 169	Shutter open
	170 - 184	Strobe 7: burst pulse (fast → slow)
	185 - 189	Shutter open
	190 - 204	Strobe 8: random burst pulse (fast → slow)
	205 - 209	Shutter open
	210 - 224	Strobe 9: sine wave (fast → slow)
	225 - 229	Shutter open
	230 - 244	Strobe 10: burst (fast → slow)
	245 - 255	Shutter open
9	000 - 255	**Ring 1 Red (0 to 100%)**
10	000 - 255	**Ring 1 Green (0 to 100%)**
11	000 - 255	**Ring 1 Blue (0 to 100%)**
12	000 - 255	**Ring 1 White (0 to 100%)**
13	000 – 255	**Ring 1 Dimmer (0 to 100%)**
14	000 – 255	**Ring 2 Red (0 to 100%)**
15	000 - 255	**Ring 2 Green (0 to 100%)**
16	000 - 255	**Ring 2 Blue (0 to 100%)**
17	000 - 255	**Ring 2 White (0 to 100%)**
18	000 - 255	**Ring 2 Dimmer (0 to 100%)**
19	000 - 255	**Ring 3 Red (0 to 100%)**
20	000 – 255	**Ring 3 Green (0 to 100%)**
21	000 – 255	**Ring 3 Blue (0 to 100%)**
22	000 – 255	**Ring 3 White (0 to 100%)**
23	000 - 255	**Ring 3 Dimmer (0 to 100%)**
24		**Color wheel effect**
	000 - 009	RGB color mixing using channels 9 to 12
	010 - 014	Moroccan pink
	015 - 019	Pink
	020 - 024	Special rose pink
	025 - 029	Follies pink
	030 - 034	Fuchsia pink

	035 - 039	Surprise pink
	040 - 044	Congo Blue
	045 - 049	Tokyo Blue
	050 - 054	Deep Blue
	055 - 059	Just Blue
	060 - 064	Medium Blue
	065 - 069	Double CT Blue
	070 - 074	Slate Blue
	075 - 079	Full CT Blue
	080 - 084	Half CT Blue
	085 - 089	Steel Blue
	090 - 094	Lighter Blue
	095 - 099	Light Blue
	100 - 104	Medium Blue Green
	105 - 109	Dark Green
	110 - 114	Primary Green
	115 - 119	Moss Green
	120 - 124	Fern Green
	125 - 129	JAS Green
	130 - 134	Lime Green
	135 - 139	Spring Yellow
	140 - 144	Deep Amber
	145 - 149	Chrome Orange
	150 - 154	Orange
	155 - 159	Gold Amber
	160 - 164	Millennium Gold
	165 - 169	Deep Golden Amber
	170 - 174	Flame Red
	175 - 179	Open
		Color wheel rotation effect
	180 - 201	Clockwise, fast → slow
	202 - 207	Stop (this will stop wherever the color is at the time)
	208 - 229	Counter-clockwise, slow → fast
	230 - 234	Open
		Random color
	235 - 239	Fast
	240 - 244	Medium
	245 - 249	Slow
	250 - 255	Open
	000 – 007	All leds
	008 – 022	Dot
	023 – 037	Ring 1
	038 – 052	Ring 2
	053 – 067	Dot + Ring 1
	068 – 082	Dot + Ring 2
25	083 – 097	Ring 1 + Ring 2
	098 – 112	All leds
	113 – 127	Macro 1
	128 – 142	Macro 2
	143 – 157	Macro 3
	158 – 172	Macro 4
	173 – 187	Macro 5

	188 – 202	Macro 6
	203 – 217	Macro 7
	218 – 232	Macro 8
	233 – 247	Macro 9
	248 – 255	Macro 10
26	000 – 255	**MACRO SPEED** (fast → slow)
27	000 – 255	**ZOOM** (wide → narrow)

MAINTENANCE

- Make sure the area below the installation place is free from unwanted persons during servicing.
- Switch off the unit, unplug the mains cable and wait until the unit has been cooled down.
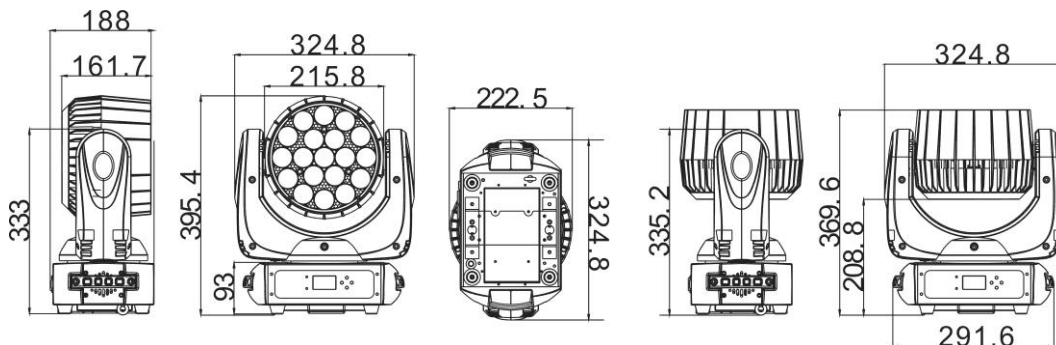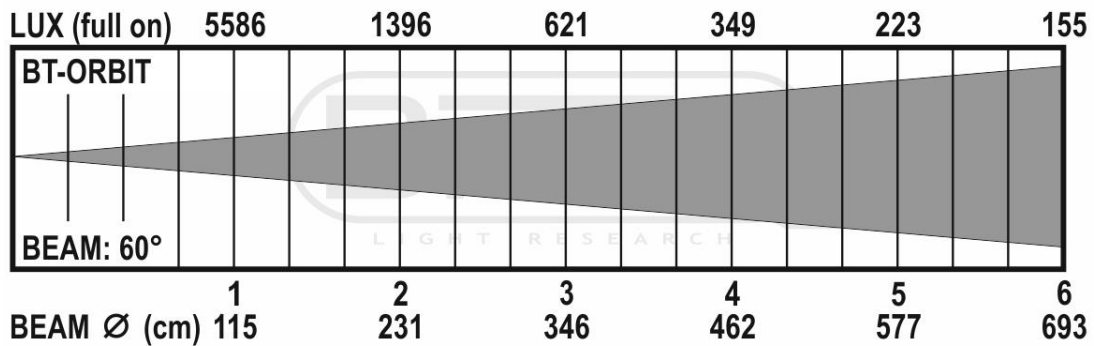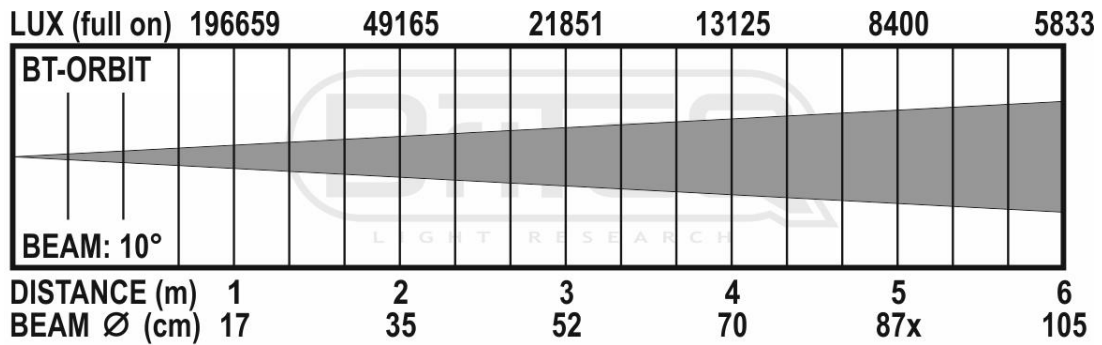
During inspection the following points should be checked:

- All screws used for installing the device and any of its parts should be tightly fastened and may not be corroded.
- Housings, fixations and installations spots (ceiling, truss, suspensions) should be totally free from any deformation.
- When an optical lens is visibly damaged due to cracks or deep scratches, it must be replaced.
- The mains cables must be in impeccable condition and should be replaced immediately when even a small problem is detected.
- In order to protect the device from overheat the cooling fans (if any) and ventilation openings should be cleaned monthly.
- The interior of the device should be cleaned annually using a vacuum cleaner or air-jet.
- The cleaning of internal and external optical lenses and/or mirrors must be carried out periodically to optimize light output. Cleaning frequency depends on the environment in which the fixture operates: damp, smoky or particularly dirty surroundings can cause greater accumulation of dirt on the unit's optics.
    - Clean with a soft cloth using normal glass cleaning products.
    - Always dry the parts carefully.

Attention: **We strongly recommend internal cleaning to be carried out by qualified personnel!**

SPECIFICATIONS

Mains Input:	AC 100 - 240V, 50/60Hz
Power consumption:	290 Watt (max, all LEDs on)
Fuse:	250V 6.3A slow blow (20mm glass)
DMX connections:	3pin-XLR & 5pin-XLR male / female
DMX channels used:	27ch, 14ch, 14+ch (different channel layout)
Lamp:	19x 15W RGBW
Zoom Range:	10° ~ 60°
Size:	see drawing below
Weight:	9,0 kg

LUX (full on)	196659	49165	21851	13125	8400	5833

BT-ORBIT

BEAM: 10°

DISTANCE (m)	1	2	3	4	5	6
BEAM Ø (cm)	17	35	52	70	87x	105

LUX (full on)	5586	1396	621	349	223	155

BT-ORBIT

BEAM: 60°

	1	2	3	4	5	6
BEAM Ø (cm)	115	231	346	462	577	693

The information might be modified without prior notice
You can download the latest version of this user manual on our website: www.briteq-lighting.com

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