Welcome & Care Guide
Avolites Diamond 9.

Welcome to Avolites New Diamond 9

We hope you are delighted with our new Avolites flagship console, here are a few tips and hints to get yourself up and running.
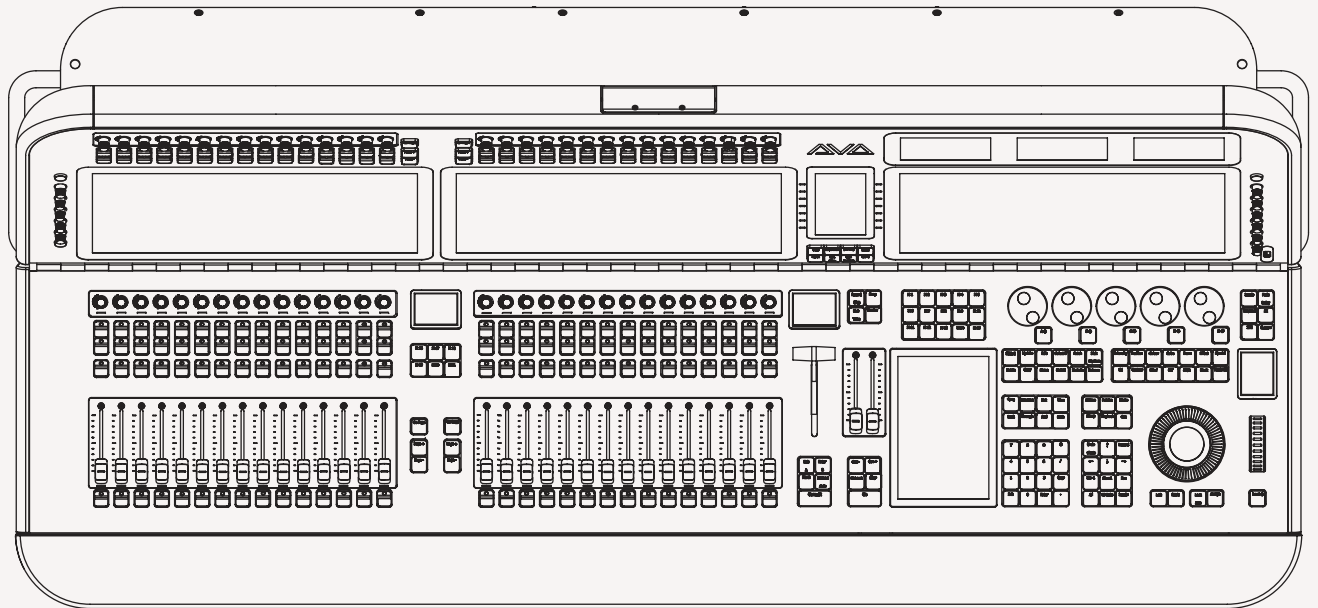
Since Avolites was founded 1976, our team has worked closely with the users of our products. With their input we have redefined our flagship Avolites Diamond experience for the next generation of shows.

Right from its inception, Avolites has always been a pioneer in the development of the integrated visual canvas. Now with our new hardware combined with our powerful software platforms, Titan and Ai, we are able to control not just lights, but integrate the control of lighting, video, generative content and special effects.

Designed from the ground up to power our proprietary Avolites Synergy software feature set, every component has been carefully chosen for its quality and precision to control the most demanding productions for years and decades to come. We believe the Diamond 9 will become the visual canvas console of its time.

Building on four decades of experience powering the most demanding shows, Avolites D9 is a dramatic evolution in production control.

DESIGNED TO PIONEER THE NEXT GENERATION OF SHOWS

Created in consultation with leading visual designers, and alongside expert industrial designers, D9 is ready for the next generation of ultimate shows and beyond. With vast screen real-estate, all-new controls, and unique media integration it intuitively combines control of all visual aspects of the show. Hand-crafted in London, built upon Avolites' heritage of quality and reliability.

CHECKLIST OF WHAT IS IN THE FLIGHT CASE

– Power Cable (powerCON TRUE1)
– Dust Cover
– 4 Pin RBW LED Desk Lamp x2
– External Monitor stands and clamps x 2 (Optional)
– Documentation
– Spare Parts Kit
– Warranty Registration

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Transport & Storage

Be careful when moving or lifting your Avolites desk. To avoid injury, a minimum of two people is required when handling the desk.

Before transporting, remove all cabling, ensure the keyboard tray is closed, return the screen back to home position using the push down latch, then protect the console using the provided dust cover. It is strongly recommended to transport the desk using the provided flight case.

The Avolites console must be protected from vibration during transportation. The console must be checked after transportation for damage.

Pay attention to the temperature and humidity during storage and transportation.

TEMPERATURE

OPERATION
0 up to 40 Degrees (ºC)
(20% up to 90% relative humidity – no condensation)

STORAGE & TRANSPORT
–10 up to 50 Degrees (ºC)
(10% up to 90% relative humidity – no condensation).

Only use the device within its operating limits.

General Safety Instructions

Place the console on to a stable and load-bearing surface only.

Do not place high powered radio devices on top of the console

Do not support yourself on the console, use the provided armrest only.

Do not place any heavy objects on top of the console.

Do not use excessive force on buttons, faders, knobs and switches.

Switch off the console using the power switch located on the rear if left unattended for a long period of time.

Shut down the console using the power button located under the arm rest, then switch off the power switch located on the rear and disconnect the power cable before cleaning the device.

Prevent liquids from entering the console.

Do not cover or block any ventilation holes. These are essential for the airflow within and will protect the device from overheating.

If the power cable or main plug power is defective, let a qualified technician replace this immediately.

Unplug the power cable to disconnect the power supply from electric voltage during thunderstorms.

Do not pull the Push Down Latch, this will damage the console and void the warranty.

IF ANY OF THE FOLLOWING OCCUR, PLEASE DISCONNECT THE MAIN POWER PLUG AND CALL YOUR LOCAL DISTRIBUTOR OR TECHNICAL SUPPORT TEAM

Ingress of liquids.

Console has been exposed to rain or high ambient humidity.

The console fell damaging the housing.

The console does not power on and none of the troubleshooting and quick start steps resolve the issue.

Support

ONLINE MANUAL

All Avolites product related manuals are available online and via the 'Tools' menu in the console.
To view the online manual, visit:
https://manual.avolites.com

VIDEO TUTORIALS

Avolites offers a whole range of videos on how to use your product in the best possible way. Get tips and tricks from our experts on your product via our YouTube channel. To learn more, visit:
https://www.youtube.com/user/avolitesvis

COMMUNITY

Share your knowledge and get help from other Titan users. A community can be stronger and better than the individual. Be part of the Avo community!

FACEBOOK GROUP
https://www.facebook.com/groups/Avolites/

FORUM
http://forum.avolites.com/
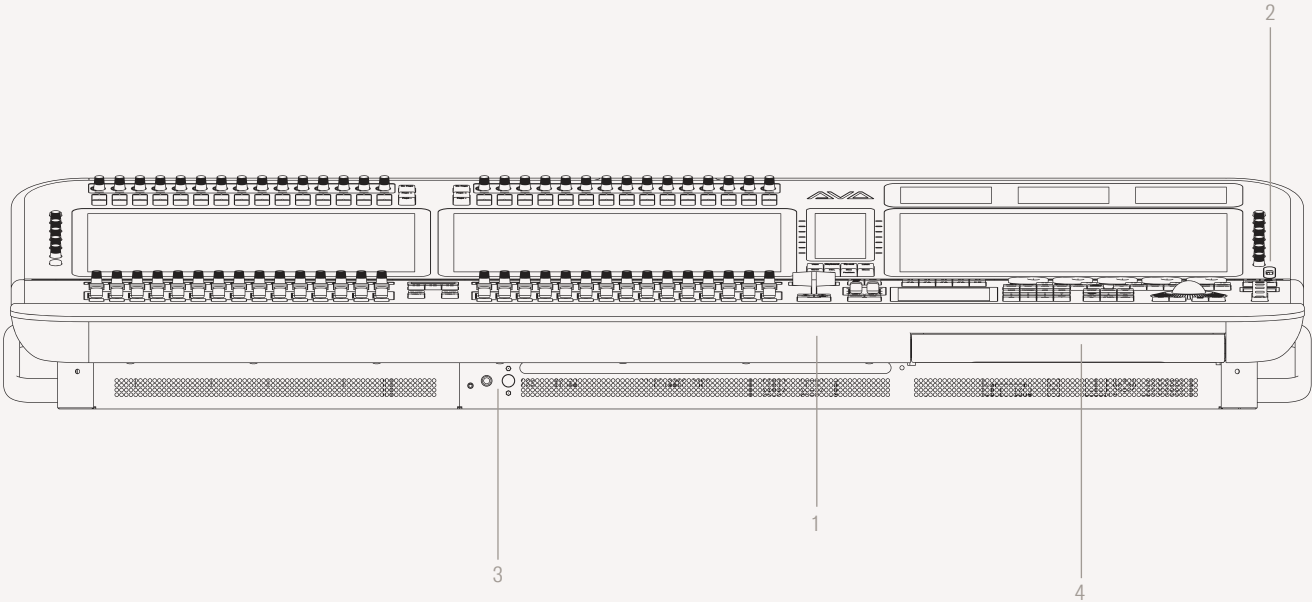
LOCAL & MANUFACTURER SUPPORT

If you have any questions regarding your Avolites product, please contact your local Avolites distributor or reseller. If you require further assistance, please contact support@avolites.com. This email service is monitored during regular business hours Monday through Friday from 9am until 5pm (BST).

EMERGENCY CONTACT

In the event of an emergency, please contact Avolites out of hours support on +44 (0) 77831 178 888.
Please note, this number is strictly for emergency technical support only.
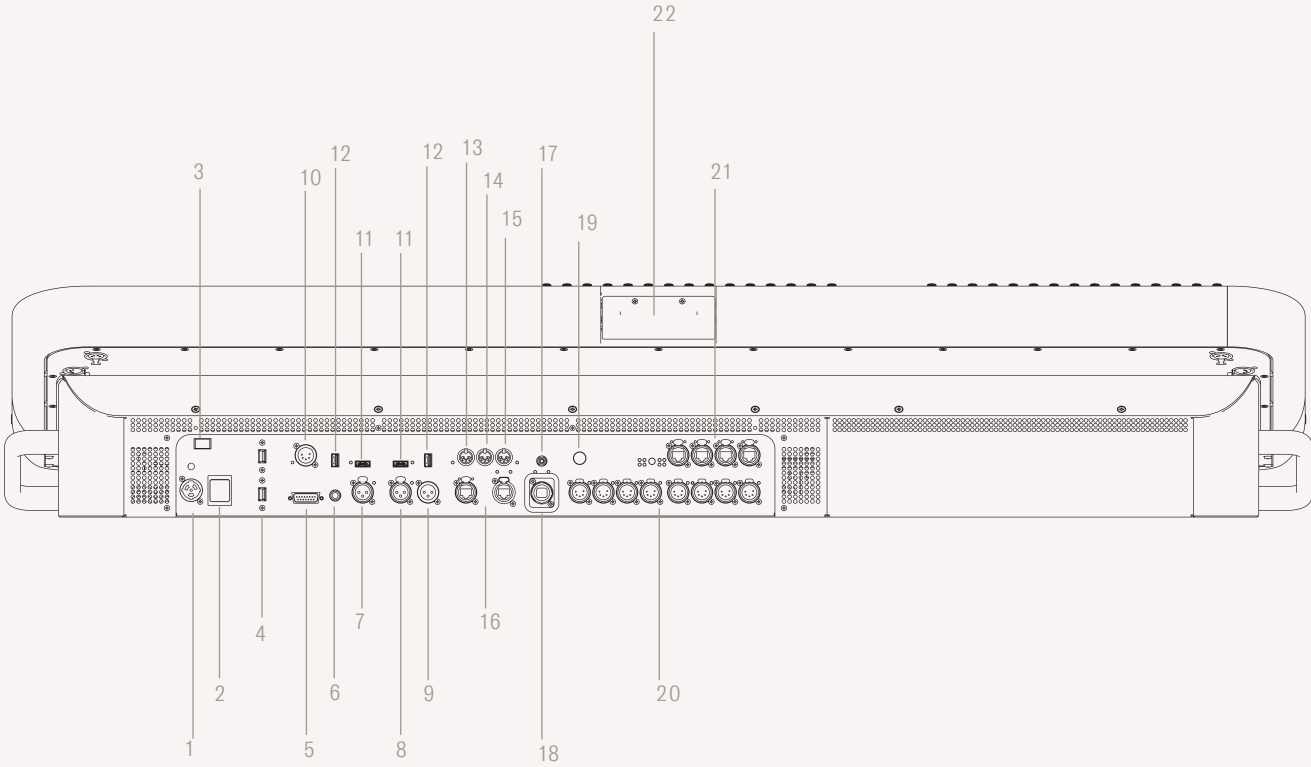
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I/O Panel

The D9 provides flexible connectivity so compatible devices and cables remain in place whatever vibration and knocks are thrown at them.

D9 Layout (Front):

1. ON/OFF SWITCH (INSIDE ARMREST)
2. USB 3.0
3. READING LIGHT
4. KEYBOARD TRAY

With backlit keys and responsive Cherry MX Low Profile key switches, the keyboard is beautifully concealed, repurposing the legendary Avolites drawer.

D9 Layout (Rear):

1. POWER INPUT
2. POWER SWITCH
3. UPS BATTERY INTERRUPT SWITCH
4. 2 X USB 3.0
5. GPIO
6. TRIGGER IN
7. AUDIO INPUT
8. LTC INPUT
9. LTC LOOP
10. DMX INPUT
11. 2 X HDMI
12. 2 X EXTERNAL MONITOR USB 2.0
13. MIDI IN
14. MIDI THRU

15. MIDI OUT
16. ETHERNET CONNECTIVITY
17. S/PDIF
18. FIBER CONNECTIVITY
19. WORK LIGHT
20. DMX OUTPUT
21. GIGACORE (LUMINEX) LED POWER & MODE INDICATOR
The onboard Gigacore 10 Luminex switch is validated against all common protocols in the AV industry including ArtNet, sACN, QoS and IGMP Snooping. The integrated switch works flawlessly with every fixture and device you connect to the network.

22. PUSH DOWN LATCH

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Quick Start

1. Unpack the console.

2. Remove the dust cover.

3. Place the device along with the bottom half of the flight case onto a stable surface (recommended).

4. Using the push down latch raise the back panel.

POWERING UP CONSOLE

1. Insert powerCON TRUE1 into the corresponding jack.

2. Fit console lights.

2. Connect the main power plug.

3. Turn on the red power switch located on rear of the console. Observe that the mains present neon is lit.

4. Press the power switch located under the arm rest.

5. Once the software has fully launched and the show file has loaded, you can then begin programming.

POWERING DOWN CONSOLE

1. Press the power switch located under the arm rest.

2. Switch off the power button located on the back and remove powerCON TRUE1 from the corresponding jack when the console has finished powering down.

3. Return screen to home position using the push down back panel.

4. Apply dust cover.

TO ENSURE THE CONSOLE IS RUNNING THE LATEST SOFTWARE VERSION, PLEASE VISIT HTTPS://WWW.AVOLITES. COM/SOFTWARE.

CONNECTING EXTERNAL MONITORS
(BRACKETS AND CLAMPS SOLD SEPARATELY)

You can enjoy a complete system mounting option by using the external monitor brackets to mount additional displays.

To take advantage of this, securely hand-tighten the provided brackets to the flight case. Place the VESA bracket in position on the back of the monitor and attach using the provided screws. Apply and tighten the monitor clamps to the brackets.

COMPATIBILITY

19 to 24-inch monitors weighing between 2.2kg to 5.5kg.

VESA 100 x 100 mm

Care & Maintenance

The Diamond 9 console requires minor attention to keep in good working order.

WARNING
All repair and service work must be performed by qualified service technicians as live parts may be exposed when opening and / or removing coverings. Touching live parts may cause electric shock.

IMPORTANT
The intervals between maintenance may differ depending on the frequency of transport and the operational environment.

Disconnect power supply before cleaning.

Clean the surface and arm rest using anti-static wipes or spray with a dry cloth only.

CLEANING

Either use non-alcoholic disinfectant or a 70% alcohol 30% water mixture.

Prevent moisture build up near the edge of the screens as this may impair the touch sensor while it is wet. If the touch sensor is affected by moisture, use clean dry paper to dry out the junction between the top of the glass and the foam gasket, by sliding the paper in approximately 6mm and running it around the whole edge of the screen. This may need to be repeated twice with dry paper to get the desired result.

MAINTENANCE

Check if the ventilation holes are blocked, they may need to cleared using a vaccum cleaner and soft brush.

Faders no longer require maintenance due to its roof tapered designed.

Dust cover should be utilised when the console is not in operation or when not stored in its flight case.

Depending on the environment, we recommend professionally cleaning the console once a year.

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One Diamond 9 experience.
Two different sizes.

D9–330

Designed from the ground up for seamlessly integrated control of all visual elements, with the finest materials and meticulous attention to detail, the Diamond 9–330 is the flagship visual canvas controller in our collection.
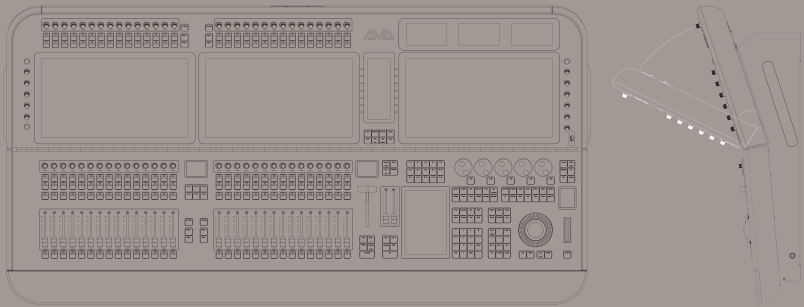

D9–215

The same intuitive, integrated control but with a smaller footprint. The Diamond 9–215 is a more compact version of the flagship visual canvas controller in our collection.

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D9-330 Data Sheet

Software

SOFTWARE PLATFORM	AVOLITES TITAN	PLAYBACK CONTROL	USER DEFINED USING MULTIPLE FADERS, ENCODERS AND BUTTONS
DMX CHANNELS PER DEVICE	16,384		
DMX CHANNELS PER SYSTEM	32,768	EXTERNAL CONTROLE	WEB API, SMPTE, MIDI, DMX, S-ACN, GPIO
MAX FIXTURES	UNLIMITED		
KEYFRAME EFFECT ENGINE	CUSTOM EFFECTS WITH ANY NUMBER OF KEYFRAMES	TITAN NET	MULTI-USER & DMX EXPANSION
		OUTPUT FORMATS	ARTNET, S-ACN, DMX512
PIXEL MAPPING	VIDEO VIA SYNERGY, PIXEL ANIMATIONS FROM TITAN	BASE OS	MICROSOFT WINDOWS 10 ENTERPRISE LTSC 64 BIT

Hardware

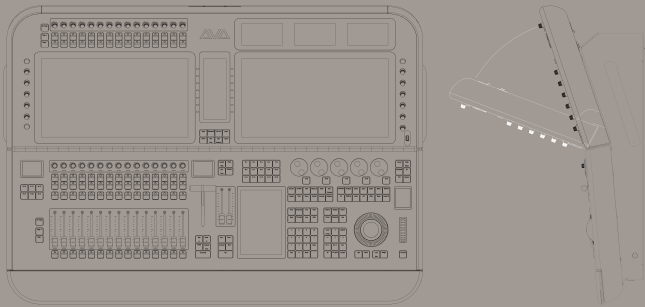|			
CPU	INTEL I7-9700K 9TH GEN UP TO 4.9GHZ	POWER CONSUMPTION	MAX 400W
SYSTEM RAM	16GB	VOLTAGE	110 – 240V AC, 50-60HZ
GPU	AMD RADEON PRO WX-5100 4TH GEN	OPERATING ENVIRONMENT	OPERATING TEMP 0-40C / 32-104F MAX HUMIDITY 95% RELATIVE NON-CONDENSING
UNIT DIMENSIONS (W X D X H)	1380 X 640 X 455 MM (SCREENS UP), 1380 X 705 X 240 MM (SCREENS DOWN)	HEAT OUTPUT	MAX 1365 BTU/HR
		INTERNAL UPS	UP TO 5 SEPARATE 4-MINUTE PERIODS, FULLY SOFTWARE INTEGRATED
	54.3" X 25.2" X 17.9" (SCREENS UP), 54.3" X 27.8" X 9.5" (SCREENS DOWN)		
WEIGHT	68 KG / 150LBS		

Connectivity

DMX 512	8 X NEUTRIK 5-PIN XLR, OPTICALLY AND GALVANICALLY ISOLATED WITH HALO ASSIGNMENT INDICATORS
NETWORK	4 X 1GBE NEUTRIK ETHERCON, INTERNALLY SWITCHED & MANAGED 1 X QUAD OPTICALCON 1GBE LC CONNECTION 1 X 1GB ETHERCON, NETWORK 2
	OPTIONAL UPGRADE TO ADD: 1 X 10GBE CONNECTION TO OPTICALCON 1 X 10GBE NEUTRIK ETHERCON
DATA / PERIPHERALS	1 X USB 3.1 UNDER ARMREST 1 X USB 3.1 ON FRONT PANEL 2 X USB 3.1 BACK PANEL 2 X USB 2.0 ASSIGNED FOR EXTERNAL TOUCHSCREENS
EXTERNAL DISPLAY	2 X HDMI UP TO 1920*1080
SMPTE	1 X 3-PIN NEUTRIK XLR TRANSFORMER ISOLATED INPUT WITH SIGNAL INDICATOR PLUS 3-PIN XLR LOOP OUT.
TRIGGER INPUTS	GPIO 4 IN/4 OUT, ISOLATED, AND DRY CONTACTS ¼" JACK FOR FOOT SWITCH. DMX512 DEDICATED INPUT WITH INDICATOR AUDIO INPUT 3-PIN XLR WITH INDICATOR
MIDI	IN, THRU, OUT ON 5-PIN DIN WITH SIGNAL AND ENABLED INDICATORS USB MIDI SUPPORTED
AUDIO OUT	DIGITAL S/PDIF RCA
MAINS POWER	NEUTRIK TRUE1®

The Diamond 9 console comes with a 2-year systems manufacturer warranty.

Features

CONTROL SURFACE

30 motorised touch-sensitive Penny & Giles faders – designer fader cap

11-segment RGB LED level indicator alongside each fader

Halo RGB indicator for each playback

70 optical rotary touch sensitive playback encoders with push function - designer knob

11-segment RGB LED level indicator alongside each encoder

RGB halo indicator for each encoder

180 C&K playback function buttons with positive haptics for timing – designer button cap

3 x 15.6" 1000nits 1920*1080 capacitive touchscreens with adjustable brightness

3 x 4.3" 1000nits 800x480 preview touchscreens for media or workspaces

Softkey menu touchscreen

Independent paging for each playback section

Programming buttons all RGB backlit, short travel Cherry® MX Low Profile switches

5 custom RGB backlit optical attribute encoders

Dedicated level wheel, machined aluminium with colour LCD status screen

T-Bar with 5 control buttons and a colour LCD status screen

Dual, motorised, touch-sensitive, master cue list fader control with 9 buttons

7" dual-touch high-brightness 800*1280 programming screen

Full custom backlit QWERTY keyboard in drawer, keys identical to program panel

X, Y, Z, optical trackball

21 backlit Macro / Executor keys, all screen-labelled

Supports two additional HDMI 1920*1080 touchscreens

CONSTRUCTION

Panels machined from single pieces of solid aluminium

Comfortable armrest

Exclusively manufactured button caps, fader caps, encoder knobs, encoder wheels and level wheel

All screens flush-mounted

Infinitely adjustable hydraulic screen panel articulation – 18 to 68 degrees from horizontal

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D9–215 Data Sheet

Software

SOFTWARE PLATFORM	AVOLITES TITAN	PLAYBACK CONTROL	USER DEFINED USING MULTIPLE FADERS, ENCODERS AND BUTTONS
DMX CHANNELS PER DEVICE	16,384		
DMX CHANNELS PER SYSTEM	32,768	EXTERNAL CONTROLE	WEB API, SMPTE, MIDI, DMX, S-ACN, GPIO
MAX FIXTURES	UNLIMITED		
KEYFRAME EFFECT ENGINE	CUSTOM EFFECTS WITH ANY NUMBER OF KEYFRAMES	TITAN NET	MULTI-USER & DMX EXPANSION
		OUTPUT FORMATS	ARTNET, S-ACN, DMX512
PIXEL MAPPING	VIDEO VIA SYNERGY, PIXEL ANIMATIONS FROM TITAN	BASE OS	MICROSOFT WINDOWS 10 ENTERPRISE LTSC 64 BIT

Features

CONTROL SURFACE

15 motorised touch-sensitive Penny & Giles faders – designer fader cap

11-segment RGB LED level indicator alongside each fader

Halo RGB indicatorfor each playback

40 optical rotary touch sensitive playback encoders with push function - designer knob

11-segment RGB LED level indicator alongside each encoder

RGB halo indicator for each encoder

90 C&K playback function buttons with positive haptics for timing – designer button cap

2 x 15.6" 1000nits 1920*1080 capacitive touchscreens with adjustable brightness

3 x 4.3" 1000nits 800x480 preview touchscreens for media or workspaces

Softkey menu touchscreen

Independent paging for each playback section

Programming buttons all RGB backlit, short travel Cherry® MX Low Profile switches

5 custom RGB backlit optical attribute encoders

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Hardware

CPU	INTEL I7-9700K 9TH GEN UP TO 4.9GHZ	POWER CONSUMPTION	MAX 380W
SYSTEM RAM	16GB	VOLTAGE	110 - 240V AC, 50-60HZ
GPU	AMD RADEON PRO WX-5100 4TH GEN	OPERATING ENVIRONMENT	OPERATING TEMP 0-40C / 32-104F MAX HUMIDITY 95% RELATIVE NON-CONDENSING
UNIT DIMENSIONS (W X D X H)	995 X 640 X 455 MM (SCREENS UP), 995 X 705 X 240 MM (SCREENS DOWN)	HEAT OUTPUT	MAX 1297 BTU/HR
		INTERNAL UPS	UP TO 5 SEPARATE 4-MINUTE PERIODS, FULLY SOFTWARE INTEGRATED, WITH BYPASS SWITCH
	39.2" X 25.2" X 17.9" (SCREENS UP), 39.2" X 27.8" X 9.5" (SCREENS DOWN)		
WEIGHT	54 KG / 120 LBS		

Connectivity

DMX 512	8 X NEUTRIK 5-PIN XLR, OPTICALLY AND GALVANICALLY ISOLATED WITH HALO ASSIGNMENT INDICATORS
NETWORK	4 X 1GBE NEUTRIK ETHERCON, INTERNALLY SWITCHED & MANAGED 1 X QUAD OPTICALCON 1GBE LC CONNECTION 1 X 1GB ETHERCON, NETWORK 2
	OPTIONAL UPGRADE TO ADD: 1 X 10GBE CONNECTION TO OPTICALCON 1 X 10GBE NEUTRIK ETHERCON
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MIDI	IN, THRU, OUT ON 5-PIN DIN WITH SIGNAL AND ENABLED INDICATORS USB MIDI SUPPORTED
AUDIO OUT	DIGITAL S/PDIF RCA
MAINS POWER	NEUTRIK TRUE1®

The Diamond 9 console comes with a 2-year systems manufacturer warranty.

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AVOLITES QM 8100

A Diamond history.

Since the birth of the company under a railway arch in 1976 in London, Avolites has believed in technology innovation, reliable components, quality finish and inspired design. A pioneer in the lighting industry, Avolites has paved the way to ever bigger, more demanding, and more immersive shows.

The diamond console heritage goes back to 1977 with the arrival of the 8100 console series. They were custom built and designed for the demands of touring. They used blue stamped fader panels, indented white lettering and wavy brushed aluminium side panels. Three styles were designed: a 72 way, 84-way and a 96-way model, all with a sloped frontage and separate inner panel construction. A classic Avolites design, this was much admired and established Avolites' flagship consoles as aspiring leaders in the industry.

Next, Avolites began to develop what became a true legend of its time and part of 'Rock & Roll' history: the QM series now with microprocessor technology for storing cues and sequences. In production from 1983 with various models it kept the fast Swap and Add of operation from the analogue 80100 series with the computerisation enabling speed of recording scenes to multiple playbacks each with a highly readable programmable electronic legend, hence the name QM (Cue Master).

This modern digital console put Avolites firmly on the worldwide map of lighting control manufactures.

Strictly speaking, there was no Diamond I, it was called QM-Diamond, and launched in 1991, just after Avolites returned to private ownership from Carlton Television. The QM-Diamond was to become the most versatile lighting console of its time; its flexible design made it an LD's favourite for both theatre or installs and major Rock & Roll tours. The advanced digital design allowed for precise, accurate and repeatable control, as well as a new creative freedom for LDs to programme or control the most demanding shows of the time.

The Diamond II debuted at PLASA in 1993, followed soon after by the Diamond III. They were designed to meet the need to control large lighting rigs with multi-parameter instruments. They offered 1024 HTP or LTP channels, 100 pages of submaster playbacks (30/20 of which were submasters), 180 Penny & Giles motorised faders, 3,071 control channels, 6 full speed isolated DMX outputs, as well as ultra-smooth optical encoders, shape generator, fan mode and highlight functions, colour VGA outputs and 'Add' and "Swap" buttons on Masters and Channels. Both came with full size Qwerty keyboards and compatible

with Avolites Graphics Tablet and riggers remote control. The Diamonds quickly became renowned for being the ultimate live performance consoles.

The Diamond IV (D4) Vision and Classic launched in October 2001, followed in 2002 with the Elite version. These were designed after intensive user research to address Lighting Designers requirements for fast, accurate and immediate control of intelligent and conventional fixtures, as well as DMX devices. To perform equally as well in live as well as pre-programmed shows or install environments where power and functionality in the minimum physical space was paramount. The Diamond 4's were stylish and had an aesthetically pleasing profile, intuitive to operate, with minimal operator fatigue and the ability to create the fastest, most cost efficient range of live or programmed shows with cutting edge technology built-in.

The NEW Diamond 9, flagship console of the new Diamond Collection, is the latest to join the legendary lineage of Avolites consoles bearing the Diamond name. Designed to power the next generation of shows, it is set to become the class leading console of its time. Yet again.

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