

# DIAMOND 7 MOVING HEAD WASH



## INVENTORY

The Diamond 7s are typically supplied as pairs in a wheeled orange Peli case. They may be parted out for smaller hires. When supplied as a pair, their inventory is thus:

Item	Quantity
Prolights Diamond 7	2
Hook clamp or half-coupler clamp	2
Omega Bracket	2
Safety Chain	2
16A-Powercon Cable	2
Wheeled Orange Pelican Case	1

Typically the accessories are supplied outside the case.

## INTRODUCTION

The Prolights Diamond 7 is an RGBW (Red-Green-Blue-White) compact moving wash light. It is supplied with clamps for rigging at height, but may also be placed at floor level, thanks to its flat base. The Diamond 7 is a highly flexible fixture, with a wide zoom and colour range, as well as basic pixel-mapping. Its rugged but portable luggage-style case makes it easy to transport to venues within and beyond Oxford (it has even been taken to the Edinburgh Fringe on a train!). However, it is not as bright as, for example, the Robe 600 moving wash lights.

The Diamond 7 is an *intelligent* lighting fixture – this means it needs a DMX-capable lighting desk with colour and focus controls (such as an ETC Nomad or Ion) to control it properly.



## DOS AND DON'TS

- DO NOT use these fixtures outdoors – they are not waterproof!
- DO NOT connect these fixtures to a dimmer circuit of any kind unless the dimmer circuit has a *bypass* or *non-dim* mode.
- DO NOT obstruct the range of movement of these fixtures – they will try to move immediately when powered on.
- DO heed all safety warnings associated with the equipment.
- DO use the included safety chain when rigging the fixtures.

# BASIC CONFIGURATION

## SETTING THE DMX ADDRESS AND MODE

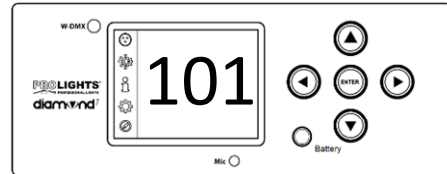
The Diamond 7 can be remotely controlled from a lighting console via DMX. For DMX control, the Diamond 7 needs a unique DMX address that does not overlap with any other equipment in the system, for example, the house dimmers or any other LED fixtures.

To give the Diamond 7 a DMX address, press the ENTER button to access the main menu. Press the UP/DOWN button to scroll the menu, then press the ENTER button to select the Connect icon. Press the UP/DOWN button to scroll through the menu, select DMX Address and press the ENTER key.

Press the arrow keys to select the desired value (001-512).

Press the ENTER key to confirm the setting. Press the LEFT button repeatedly to exit the menu and save your changes.

The DMX address should now be displayed in large numbers on the Diamond 7's display.



The Diamond 7 has three DMX modes. For theatrical purposes, **Standard Mode (19-channel) is most suitable**. If you wish to do pixel-mapping, then you may wish to use the **Extended 2 (50-channel) mode**. To set the DMX mode, press the ENTER button to access the main menu. Press the UP/DOWN button to scroll and select the Set icon, then press ENTER. Press the UP/DOWN button to scroll and select Users and press ENTER. Use the UP/DOWN button to scroll through the menu, select User Mode and press ENTER to confirm your choice. Use the UP/DOWN button to select the desired DMX mode then press the ENTER button to confirm. Press the LEFT button repeatedly to exit the menu and save your changes.

When patching multiple Diamond 7s, their addresses must not overlap. For example, a Diamond 7 in 19-channel mode on address 101 uses addresses 101-119. Therefore, subsequent VK3010s should be set to address 120, 139, 158 and so on.

## PATCHING THE DIAMOND 7 IN EOS

To access the Patch screen in Eos press [Displays] and then the {Patch} softkey. Type the channel number you wish your fixture to appear as in Eos, then press [At], then type in the DMX address you set on the fixture. For example, [1] [At] [1][0][1] [Enter] would patch a Diamond 7 at DMX address 101 to appear as channel 1 in Eos.

Chan	Address	Type	Label	ACH	DMX	ACTN	Output
1	101	Dimmer					0
2							

We now need to set the fixture type, so that Eos knows what kind of light it is controlling. These may be found in Type > Search > Prolights > Diamond 7, as shown here:

Add Show	Name	Category	User Range
▶ Diamond 7			
▶ Diamond 7 Basic 8 [18]	1 Pan	Focus	315 > 315
▶ Diamond 7 Basic 16 [20]	2 Tilt	Focus	>315 > >315
▶ Diamond 7 Extended 1 [20]	3 Position MSpeed	Focus	0 > 255
▶ Diamond 7 Extended 2 [50]	4 Strobe Mode	Form	+
▶ Diamond 7 Extended 2 MC 50 [8 Cells]	5 Shutter Strobe	Form	+
▶ Diamond 7 Extended 2 [50]	6 Intensity	Intensity	0 > 100
▶ Diamond 19	7 Color Mix Mode	Color	+
▶ Diamond 19CC	8 Color Mix	Color	+
▶ Diamond 19TW	9 Color Mix 2	Color	+
▶ Diamond 37	10 Red	Color	0 > 100
▶ Digital160	11 Green	Color	0 > 100
▶ Digital160	12 Blue	Color	0 > 100
▶ Digital144	13 White	Color	0 > 100

A successful final patch for four Diamond 7s in Standard mode might look like this:

Chan	Address	Type	Label	ACH	DMX	ACTN	Output
1	101-119	Diamond 7 Standard					0
2	120-138	Diamond 7 Standard					0
3	139-157	Diamond 7 Standard					0
4	158-176	Diamond 7 Standard					0

## EXAMPLE CONFIGURATIONS

These are some worked examples of typical uses of the Diamond 7. This is not an exhaustive list – the Diamond 7s are extremely portable fixtures and can work in many spaces, though you may need additional adapters (e.g. 13A-16A or 15A-16A) and an ETC Nomad if the venue does not have an Eos control desk. If in doubt, consult the venue’s technician or a Hires Rep.

### KEBLE O’REILLY (GRID LEVEL)

Additional equipment needed: 5-pin XLR cable(s).

1. Set the DMX address and personality of the Diamond 7. The Keble O’Reilly dimmers typically run on a different universe to intelligent lights, so you don’t need to worry about overlapping with them.
2. Select an ‘X’ socket near where you are rigging the Diamond 7, for example X60. Go to the patchbay in the O’Reilly tech box and use the patch cables to supply the X socket with non-dim power of the correct phase. Be sure to consult with the O’Reilly Theatre Technician if you are unsure how to do this.
3. Rig the Diamond 7 safely, including the supplied safety chain.
4. Plug the Diamond 7 into the ‘X’ circuit using the included 16A cable.
5. Switch on the non-dim power using the switches to the top right of the patchbay.
6. Connect the Diamond 7 to the O’Reilly’s DMX network using a 5-pin XLR cable. There are many DMX ports at grid level.
7. Follow the usual instructions for patching the Diamond 7, but when setting the address in Eos, place it on universe 2. For example, to set channel 1 to be a Diamond 7 on DMX address 101 in universe 2, type [1] [At] [2] [/] [1][0][1] [Enter].

### PILCH STUDIO (GRID LEVEL)

Additional equipment needed: 15A-16A adapter(s), 3-pin XLR cable(s), 5-3 pin XLR adapter(s).

1. Set the DMX address and personality of the Diamond 7. Make sure the address is greater than 60, so that it does not overlap with the Pilch dimmer addresses.
2. Rig the Diamond 7 safely, including the supplied safety chain.
3. Select a dimmer circuit near where have rigged the Diamond 7. Go to the dimmer rack in the cupboard (behind the stage right door) and set this circuit to ‘Bypass’ mode using the switches near the bottom of the dimmer panels. This will supply the socket with hot power.
4. Plug the Diamond 7 into the circuit using the included 16A cable and a 15A-16A adapter. Be aware that the Diamond 7 will start to move at this point, and keep fingers clear.
5. Connect the Diamond 7 to the Pilch’s DMX network using a 3-pin XLR cable and a 5-3 pin XLR adapter. There are two DMX ports at grid level, and either will work for this purpose. DMX data to additional fixtures may be daisy-chained out of the Diamond 7s DMX OUT port.
6. Patch the Diamond 7 as usual.

### DAISY-CHAINING POWER AND DMX WITH COMBI CABLES

In addition to standard DMX daisy-chaining, the Diamond 7s may pass power onwards to other fixtures using the white Powercon port on the back. OUTTS can supply ‘combi’ cables that carry both power and DMX, which can be very helpful in venues that do not have easy access to hot power. Always consider current draw when daisy-chaining fixtures.

