COBRA

ZOOM EXPLANATIONS

SOFTWARE V120

AYRTON

Digital Lighting

On COBRA you have 3 different ZOOM modes providing different behavior for different usage. All three beam modes may be dynamically selected during use allowing the operator to choose the most appropriate mode for the particular element of the show. These modes are explained below.

The zoom mode can be selected by channel 15 in Basic DMX footprint, 17 in Standard DMX footprint and 20 in Extended DMX footprint. From DMX 0/255 to 84/255 you select the Beam Mode, from DMX 85/255 to 169/255 you select Spot Mode and from 170/255 to 255/255 you select the Parallel Beam.

For optimal results we recommend that you use the latest GDTF file which can be found here:

https://bit.ly/3Ccuyr5

or in your console of choice set your defaults to:

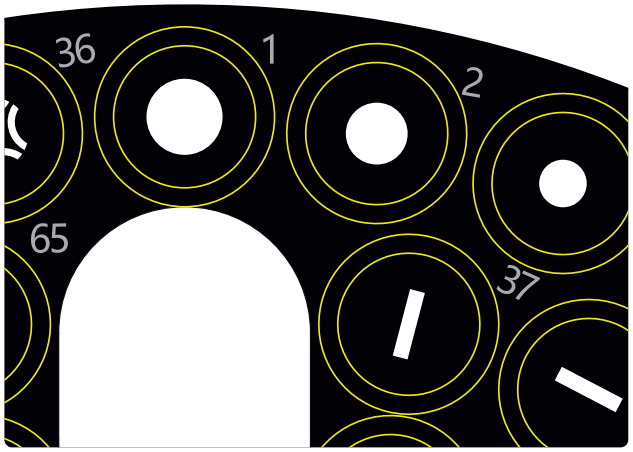
Channel	Basic (coarse)	Standard (coarse)	Extended (coarse/fine)	DMX/255 (coarse/fine)	%
Zoom	11	13	14/15	12/84	7.55
Focus	12	14	16/17	90/193	35.45
Zoom Mode	15	17	20	0	0

This will, when turning the fixture on at full give you the best results out of the gate, of course still allowing total control/manipulation as required.

1 BEAM MODE

This mode is built to give you the maximum power and have a very bright center beam to create aerial effects. The counter part with this mode is that the spot on the wall contains a very bright hot spot.

To do this we use the GOBO slot 1 from the fixed wheel as the focal point.



Fixed gobo wheel

Beam Mode, Sharp Beam Projection

Beam Mode, Midair Projection

Pictures taken at 15 meters distance with following parameters:

Channel	Basic (coarse)	Standard (coarse)	Extended (coarse/fine)	DMX/255 (coarse/fine)	%
Zoom	11	13	14/15	12/84	7.55
Focus	12	14	16/17	90/193	35.45
Zoom Mode	15	17	20	0	0

1

2

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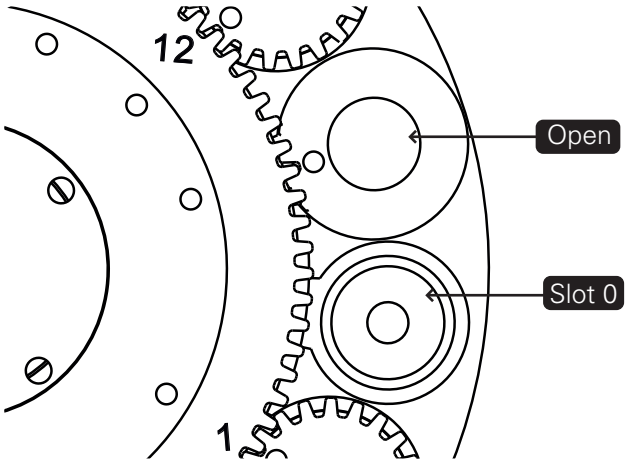
Due to the intended design of Cobra resulting in an incredible beam, capable of minimal divergence over long distances, Beam Mode also limits the effective zoom range of the unit to between 0.6 degrees to 3 degrees. This limiter is enabled by default and may be disabled by the user by selecting the following ***OPTION > Beam Mode > Limited Range / Full Range*** from the fixture menu.

Please note that this limiter has been added in software V120 and fixtures running previous versions will not have this functionality. We recommend that all customers upgrade their Cobra to V120 or later.

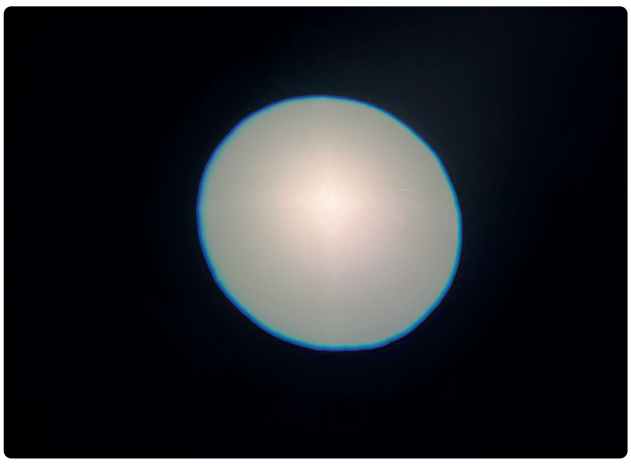
2 SPOT MODE

This mode is built to give you the most even spot on the wall with as little as possible drop off between center and edges. The counter part is that the created beam does not have as much energy through the air.

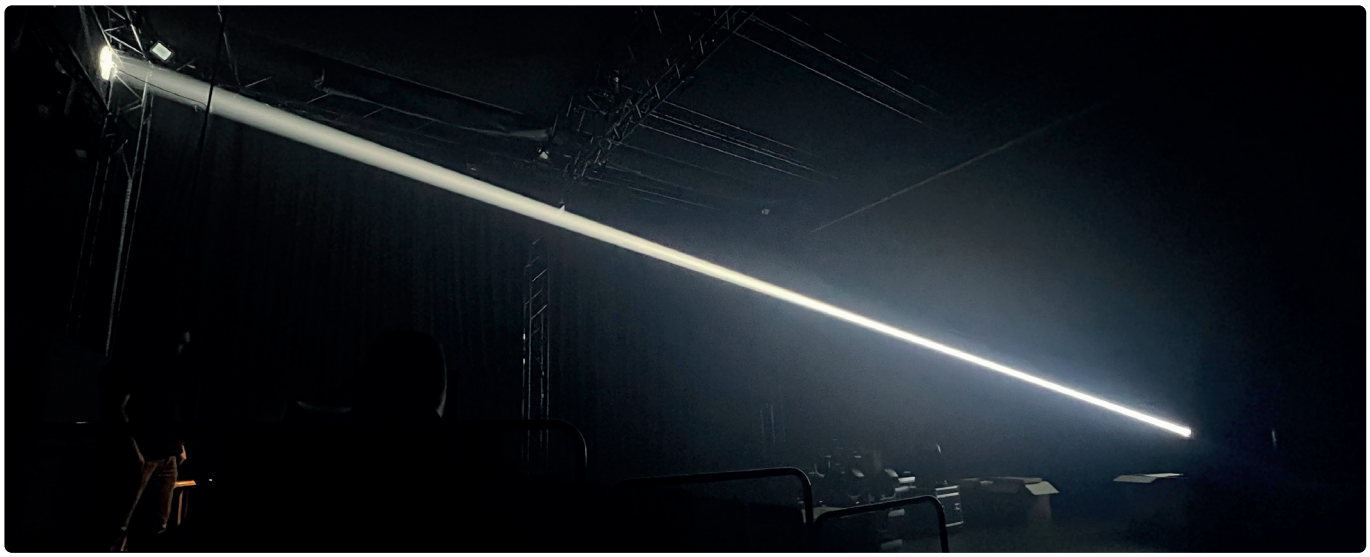
To do this we use the GOBO slot 0 from the rotating wheel as the focal point.



Rotating gobo wheel



Spot Mode, Sharp Spot Projection



Spot Mode, Midair Projection

Pictures taken at 15 meters distance with following parameters:

Channel	Basic (coarse)	Standard (coarse)	Extended (coarse/fine)	DMX/255 (coarse/fine)	%
Zoom	11	13	14/15	19/117	7.6
Focus	12	14	16/17	151/10	59
Zoom Mode	15	17	20	105	41

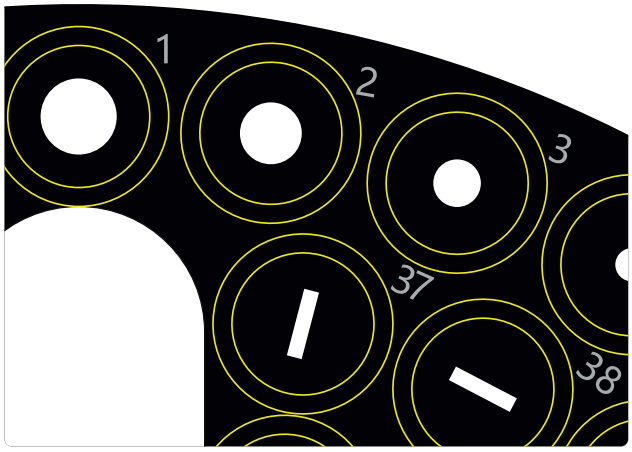
Please be noted that when inserting a fixed gobo into the light path, set the focus to get sharp edges, you will lose the benefit of beam homogeneity.

Spot Mode does not contain any limitations on zoom and when in spot mode you have access to the zoom range from 0.6 degrees to 23 degrees.

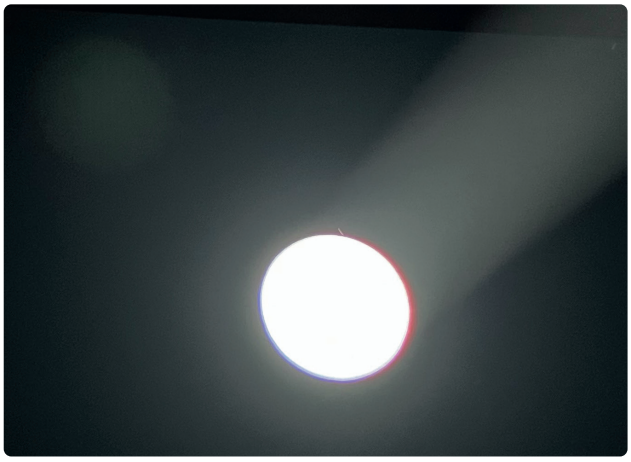
3 PARALLEL BEAM

This mode is built to give you an easy access to a parallel beam. This beam is not fully optimized in term of light output but will give you a quick way to obtain a bright parallel beam.

To do this we use the GOBO slot 4 from the fixed wheel as the focal point.



Fixed gobo wheel



Parallel Mode, Sharp Beam Projection

Parallel Beam, Midair Projection

Pictures taken at 15 meters distance with following parameters:

Channel	Basic (coarse)	Standard (coarse)	Extended (coarse/fine)	DMX/255 (coarse/fine)	%
Zoom	11	13	14/15	19/18	7.5
Focus	12	14	16/17	109/146	42.8
Zoom Mode	15	17	20	192	76

The Parallel Beam setting also limits the effective zoom range of the unit to between 0.6 degrees to 5 degrees. This limitation is fixed and cannot be removed, it will help to have the optimized quality for midair effects.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