



MOVING EFFECTS

The Moving Effects range is designed to complement DHA gobos and to extend the capabilities of standard theatrical, architectural and photographic lighting units. The primary goal has been to allow the use of the basic luminaire – the profile spot – for applications which would traditionally call for considerably more expensive effects projectors.

Flexibility is the key to the system, the basic nature of the effect depending on an economical and easily changeable component – the gobo. However, the system is not seen only as a low cost alternative to traditional effects projectors; the methods used open up a range of dynamically changing light textures and qualities not available through other means.

DHA Moving Effects are available in two motor-drive options: Fixed speed (mains voltage) or Varispeed (12V DC).

To prevent damage, care must be taken that Animation Units, Gobo Rotators and Yoyos are correctly installed. Full instructions are supplied with each unit. The Moving Effects range has been designed for normal use in theatrical applications.

NOTE

CLIENTS SHOULD CONSULT DHA BEFORE ORDERING EQUIPMENT IF IT IS TO BE USED IN HARSH ENVIRONMENTS, SUCH AS IN EXTREMES OF TEMPERATURE OR HUMIDITY, OR IF IT IS INTENDED FOR CONTINUOUS OPERATION OVER EXTENDED PERIODS OF TIME.

ANIMATION

DHA's Animation system creates moving images based upon a static gobo in a standard profile lantern. The effect can be changed, from flames to rippling water or from clouds to snow, simply by changing the gobo and/or the animation disc. The quality of the effect can also be varied greatly by changing the focus of the lantern and the orientation and speed of the animation unit.

System Components

An animation unit consists of a motorised drive (Animation Motor Unit), which fits into the colour runners of the lantern, and an etched metal disc (Animation Disc) which fits onto the motor unit and is rotated in front of the lens. With a gobo in the gate of the lantern, the pattern of holes on the animation disc interacts with the optics of the lantern giving the impression that the projected image is moving. The effect achieved is a directional rippling or shimmering of the gobo image. The quality of this motion is controlled by the pattern, speed and direction of the disc and the focus of the lantern. A change of gobo is often all that is needed to make a completely new effect.

Animation Motor Units (AMUs) come in a wide range of sizes to fit most popular lanterns, from mini parcans to 2.5 kW profile spots. See the fitting reference section or contact DHA for up to date information on which fitting is required.

Animation Discs are available in five sizes to suit the complete AMU range. The smaller discs are etched from aluminium and anodised black whilst the larger ones are etched from stainless steel, blackened and edged with PVC. There are 12 standard disc patterns which give a wide range of effects. For details of these patterns refer to "ANIMATION DISCS".

DHA also make custom discs for the Strand Cadenza EP, White Light's VSFX and the RDS system effects projectors for applications such as scrolling text and logos. A range of glass discs with full-colour, photographic quality images is also available.

Using Animation with Profile Lanterns

Choice of Gobo

The gobo is the basis of the moving image and should be chosen first. It is worth noting, however, that useful and interesting effects can often be achieved with the most unlikely gobos, by projecting them out of focus.

Focus

With the gobo in hard focus animation barely works, movement is minimal and results will almost always be disappointing but, when the image is extremely defocused greatest movement is seen but the gobo pattern is lost. It is essential therefore to experiment with focus in order to achieve the best effect. The precise quality of the result, and the impression of the motions' direction, will also depend on which side of hard focus the lantern is set.

Disc Pattern

The "EFFECTS IDEAS" section describes the variations on the basic effect that individual disc patterns can produce.

Direction and Orientation

The animation unit can usually be mounted with the disc spindle either above or to the side of the lens tube. With the spindle above the lens tube the movement will be side-to-side and, with the spindle at the side, movement will be up-and-down. The perceived image movement reverses on opposite sides of the hard focus point. All DHA animation motors are reversible to facilitate full control over the direction of motion.

Speed

The apparent speed of image movement depends not only on the disc rotation speed, but on the complexity of both gobo and disc patterns and, to some extent, the type of lantern used. Speeds suggested in the examples in this handbook are guidelines and only intended as a starting point.

Colour

Coloured gel can be fixed with scroll tape or push-through paper fasteners to the animation discs themselves, in strips or patches, to produce changing colours. This works best with very narrow strips of gel. Using split colour in the colour frame of the lantern can also produce a more rapid impression of changing colours.

Use with Non-Profile Lanterns

Animation can be used with paricans, including M16 mini paricans (birdies), fresnel and PC lanterns. These lanterns generally give a more direct image of the disc pattern and often a much wider degree of cover. The results will depend on the optics of the lantern but can be very effective. It is worth experimenting with removing the lenses from fresnel and PC lanterns, changing the lamp type in paricans or mini paricans and, if lamp striations are visible, using light frost in the colour frame.

Options

The following table gives AMU references and appropriate disc sizes for various lanterns. All units are available in five fixed speeds (0.25, 1, 2, 5, 10 rpm) and Varispeed. Fixed speed units operate directly from a mains voltage supply (120V or 230V) while Varispeed units must be driven from a DHA DC Controller (12V DC output). All animation units for DB size discs and larger have attachment points for safety chains or wires.

The product code for most animation units is given by the lantern plate size in millimetres. So for a Strand Cantata whose colour frame is 185mm square the animation unit is an AMU185. The exceptions to this rule are AMU012 through to AMU014 which do not simply drop into the colour frame but have other methods of attachment.

When ordering Animation Units it is important to specify not only the size but the speed and voltage required



ORDERING CODES - EXAMPLES ONLY

AMU 185/5/230	ANIMATION UNIT FOR ALTMAN LEKO, 5 RPM, 230V
AMU 165/V	ANIMATION UNIT FOR TEATRO TRATTO, VARISPEED
AMU 075/1/120	ANIMATION UNIT FOR M16 PARCAN (BIRDIE), 1 RPM, 120V
AMU 160/10/230	ANIMATION UNIT FOR ETC SOURCE FOUR, 10 RPM, 230V

ANIMATION FITTING REFERENCE

Unit	Disc	Lantern(s)
AMU012	DA	Microlights Profile
AMU013	DB	Erco Stella 95mm diameter
AMU014	DC	Erco Eclipse, Stella 130mm diameter
AMU075	DA	M16 mini parcan (birdie)
AMU080	DA	Times Square MR75Z
AMU085	DA	Altman Micro Ellipse Vision Micro Ellipse
AMU100	DB	Times Square Q325
AMU102	DB	Strand Patt 23
AMU110	DB	Times Square Q250
AMU125	DC	ADB DS54, DW54 CCT Minuette Novalite 500W Followspot Selecon Zoomspot 650, Acclaim zoomspot Strand Hilite 23, Minim 23 Times Square Q3Z Zero 88 Focus
AMU140	DC	Spotlight Milano Sintesi 650W Vision 650W
AMU150	DC	Strand Prelude, Quartet TBA/Thomas 650W
AMU155	DC	ADB A58D, A59Z
AMU160	DC	ETC Source Four, Altman Shakespeare
AMU165	DD	Strand Patt 263, 264, 23N Spotlight Milano Sintesi 1200W Teatro Tratto Vision 1200W
AMU180	DD	Robert Juliat 600 series
AMU185	DD	Altman 360Q ('Leko'), 1 KL CCT Silhouette 30, 40, Project, Freedom Lee Colortran Windsor 16-34, Windsor 24-48 Niethammer HPS 017-030, HPS 117-130 Selecon Zoomspot 1200 Strand Cantata, Optique, Harmony, T-spot, Leko (not Leko 11)
AMU215	DE	Niethammer HPS 011-111, HPS 212-230, HMS 112-130, Robert Juliat 700 series, 900 series
AMU222	DE	ADB "Europe" series (not DN lens) requires ADB mounting plate
AMU245	DE	CCT Silhouette (including Turbo) 15, 11-26, 15-2, 19-45 Lee Colortran Windsor 11-26 Niethammer HPS 209, HMS 109, ENIZOOM Spotlight Milano Sintesi 2500W Strand Alto, Cadenza, Toccata Teatro Acuto Vision 2500W