

These useful devices have hundreds of applications on-stage, under-stage and in the flytowers. The old Load Release Mechanism, now called the Electro Kabuki, has been completely redesigned to suit the needs of the entertainments industry. The other solenoids that we have selected cover most theatre applications but we can also supply heavy duty shot bolts and rotary solenoids. For projects outside the UK other voltages can be supplied. Full technical data sheets are available.

## ELECTRO KABUKI LOAD RELEASE MECHANISM

new



HIRER



### Electro Kabuki

This award winning new design of the old Load Release mechanism will reliably release weights of up to 50kg. It can be used to drop items such as backdrops, dummies or cables on cue from a remote position. The load can be released as a vertical drop or at angles up to horizontal. The item is attached to a hook arm which pivots free when the magnet is energised. A clever spring is incorporated to throw the arm clear of the magnet when light loads are used. The new models have a rubber sound dampening pad so the operation is virtually silent. A safety catch is incorporated so that the mechanism can be tested prior to the show without releasing the load. The catch should be locked on until it is safe to operate. The Electro Kabuki is supplied with AMP CPC Series 1 connectors so that they can be easily daisy chained. There is no longer any need for a special bracket as the new mounting incorporates two threaded locations to take M12 bolts [max depth 20mm]. Aluminium Doughty or Manfrotto half couplers or suitable hook clamps can be used to make a quick fixing to scaffold size tubes. It can be positioned vertically as shown or mounted horizontally to reduce its profile depth. Wt 2kg.

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- ✓ Now with built in daisy chain feature! ✓ Built in safety catch.
- ✓ Sound dampened. ✓ M12 threaded inserts top and rear allow easy connection to hook clamps etc. ✓ Now also available in 110V ac version [plus other voltages for work outside UK].
- ✓ No wiring necessary- just order ready made cables!
- ✓ Continuous program of improvements- visit [flints.co.uk/sole-noids](http://flints.co.uk/sole-noids) for the latest details.

<b>SAFETY</b>	Breaking load	Safety factor	Safe working load
	100kg	2 to 1	50kg

The function of the Electro Kabuki Drop Mechanism is to suspend a load and release it on command from a remote location. Although the equipment is highly reliable it must be remembered that NO SYSTEM IS 100% RELIABLE. The Electro Kabuki must therefore not be used in an application where untimely release of the load might cause injury, death or damage to property. Each mechanism is supplied with detailed instructions which are also available to download from our website.

Electro Kabuki Load Release Mechanism	code	each
For 230v AC supply	SOLEK1M1PA230	£248.00
For 24v DC supply	SOLEK1M1PA24	£246.00
For 110v AC supply	SOLEK1M1PA110	£248.00
Doughty Half Coupler 500kg plus bolt	DOU58100+MSCCH1230	£14.47
Manfrotto Half coupler 300kg plus bolt	SOLEKMF300	£13.10

**Bulk Tradeline discounts. Available on main unit only.**  
**Buy 10, less 10%, Buy 30 less 15%, Buy 50 less 20%**

## FIRING UNIT

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**Firing Box** This new control box will fire up to 200 Electro Kabuki Mechanisms [230vAC] or 30 of the 24vDC versions [or 75 of the 110v]. It is fitted with weatherproof colour coded AMP® connectors, two fuse holders [one spare

fuse] and a LED light to show when the system is armed. Please note that the firing unit is NOT a transformer. If you are using the 24Vdc units you will need a 24Vdc supply. Connecting the firing unit to the Electro Kabuki Mechanisms couldn't be simpler, firstly you will need to order a power lead which has the correct AMP® connector on one end [the other end is bare for you to fit your style of plug], then decide on the length of cable to the first Electro Kabuki and finally decide the distance between the devices. The cables are supplied with colour coded plugs so you can't go wrong. The power cable is listed below and the other cables are listed in the wiring section opposite. All units are supplied with detailed instructions.

Control Boxes	code	each	Tradeline per 10
Firing Unit 230V AC	SOLF1PA230	£145.00	£130.50 each
Firing Unit 24V DC	SOLF1PA24	£143.00	£128.70 each
Firing Unit 110v	SOLF1PA110	£145.00	£130.50 each
Power feed cable 2m [AMP to bare]	SOLB2A	£14.27	

[See Wiring Section opposite for other cables]

## SPLITTER BOXES

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**Splitter Boxes** Although the Electro Kabuki mechanisms can be easily daisy chained, there are still times when a splitter box can be useful. If you have three drops in different locations in a grid or high ceiling a single cable can be run to a

splitter box and then sent in three directions to the mechanisms. Alternatively the box can be mounted alongside the firing unit and selected units can be fired either by unplugging cables. The splitter box is fitted with an M12 threaded insert for easy connection to hook clamps or half couplers.

Splitter Box	code	each	Tradeline per 10
Three way splitter	SOLEKASP3	£105.00	£94.50 each
Doughty Half Coupler 500kg plus bolt	DOU58100+MSCCH1230	£14.47	each
Manfrotto Half coupler 300kg plus bolt	SOLEKMF300	£13.10	each

## WIRING OPTIONS AND ACCESSORIES

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**Wiring Options** Wiring up the Electro Kabuki Mechanisms couldn't be simpler. The supply end of each cable is pre-fitted with a blue male [pin] connector and the load end is fitted with a white/grey female connector [socket]. The mechanisms and the firing box are colour coded

to match. The AMP connectors used on the cables are weather proof to IP65. All you need to do is choose the length of cable you need between the firing box and the mechanisms and also the distance between the mechanisms. Special lengths can also be made up but they are slightly more expensive. I am afraid these cable prices can receive no further discount.

✓ Foolproof. ✓ Quick -saves fit up time. ✓ No specialist skills required.

Standard Cable Lengths	code	each	per 30	per 50
2m length	SOLA2A	£24.55	£23.32	£22.16
5m length	SOLA5A	£26.70	£25.37	£24.10
10m length	SOLA10A	£32.55	£30.92	£29.38
20m length	SOLA20A	£42.65	£40.52	£38.49
30m length	SOLA30A	£54.65	£51.92	£49.32
Connector	SOLA1C	£19.92		

Non Standard Cable Lengths	code	each
Power in blue AMP connector [fitted to your cable]	SOLAMPSPF	£11.26
Power out white AMP connector [fitted to your cable]	SOLAMPPF	£11.26
1.5mm <sup>2</sup> black cable [price per metre]	SOLCABLE	£1.20
White Pin AMP connector [not fitted]*	SOLAMPP	£10.70
Blue Socket AMP connector [not fitted]*	SOLAMPS	£10.70

\* Please note that AMP connectors require a special tool for fitting.

### Spares for Solenoids

Spares	code	each
Pack of ten 24Vdc 8A fuses for firing unit	SOLF18A	£3.68
Old Style Plug for 24v DC supply	SOL01DC	£2.50
Old Style Rectifying plug for 240v supply	SOL02AC	£11.50

## HOLDING MAGNET



**Holding Magnet** This is a 35mm diameter magnet which when energised releases its load. The applications are numerous - it could secure the lid to a drop box, release a light cloth, or make a picture fall from a wall. We recommend using our 40mm diameter holding plate [armature]. A rubber grommet is supplied to allow some movement to ensure complete contact with both faces. If you want to release very light loads ensure that the voltage is accurately delivered to

avoid residual magnetism. Adding extra weight or spring loading doors can be helpful design tips. Our holding magnets are supplied with a plug and socket connector with PG11 glands ready to take your cable.

Size: 50mm long x 35mm diameter.

Fixings: One off 5mm machine screw. Weight: 350g Power Consumption: 8 watts

Holding Magnet	code	each
with plug for 24v DC supply [excl. holding plate]	SOL035	£87.43
with plug for 230v AC supply [excl. holding plate]	SOL035AC	£96.44
spare plug for 24v DC supply	SOL01DC	£2.50
spare rectifying plug for 240v supply	SOL02AC	£11.50

As these units are impulse rated they should not be energised for longer than 15 seconds - our Firing Box is fitted with a momentary switch to avoid this happening. If using the Firing box you will need to order a power feed cable [SOLB2A] and a length of cable [SOLCABLE] fitted with a white AMP connector [SOLAMPP]. You will need to connect the cable to the Holding magnet.

## ARMATURE PLATES



**Armature Plates** These plates are surface ground electro nickel plated and are the correct thickness for maximum performance from your solenoid. Size: 40mm diam x 6mm thick supplied with 4mm csk shoulderscrew and rubber grommet with 6mm of exposed thread. Weight: 50g

Armature	code	each
	SOL40ARM	£8.78

### Solenoid Care

- ✓ Keep the matching surfaces clean. Even a small iron filing stuck to the magnet will dramatically reduce performance. Try to appoint one person to take charge of re-setting. The sticky side of insulating tape is good at removing small particles.
- ✓ As these units are impulse rated they should not be energised for longer than 15 seconds. If they remain energised they will heat up and require a different voltage to release.
- ✓ If you are bolting clamps to the Electro Kabuki make sure the bolt length is correct. Using a bolt which is too long could damage the unit. Choose socket head cap screws if using Doughty 500kg Half Couplers [M12x30mm].

## SMALL SHOT BOLT



**Small Shot Bolt** This device is ideal for light duty safety catches on safety cages and lift access gates. They spring to lock and energise to release. It can also be used to drop light loads. It has a 10mm stroke

on its 8mm diameter bolt and is supplied with flying leads. The unit is secured by its neck through a 16mm hole with the nut provided. The reverse end of the stainless steel bolt is tapped to take a 3mm bolt which could be used as an emergency release in the event of a power failure. The bolt slides on long life PTFE bearings. These units are continuously rated for 24v DC. You will need to provide a 24v DC supply. Size: 40mm diameter x 60mm plus 12mm long threaded neck (M16). Weight: 460g Power consumption: 14 watts

Small Shot Bolt	code	each
	SOL40SHOT	£57.00

These solenoids are not suitable for heavy side loads. Please ask for details about heavy duty solenoids.

### Design Tips when using Holding Magnets

It is very difficult to pull an armature plate directly off a holding magnet -well, I certainly can't. However, it is possible to slide the plate off by pushing hard with your thumbs -this is getting very technical. If possible try to design your mechanism so that the plate can not slide off. Hinged lids work very well as the plate will need a direct pull. Incorporate a small spring if the door is very light. If you want to drop a picture from the wall consider placing a small lip under the picture so it has to fall forwards. Always ensure the plate and the solenoid make 100% contact, it is normal to allow the plate to move slightly to avoid any misalignment. Finally, keep the faces spotlessly clean.

**For Hire Details see page 3.77.**