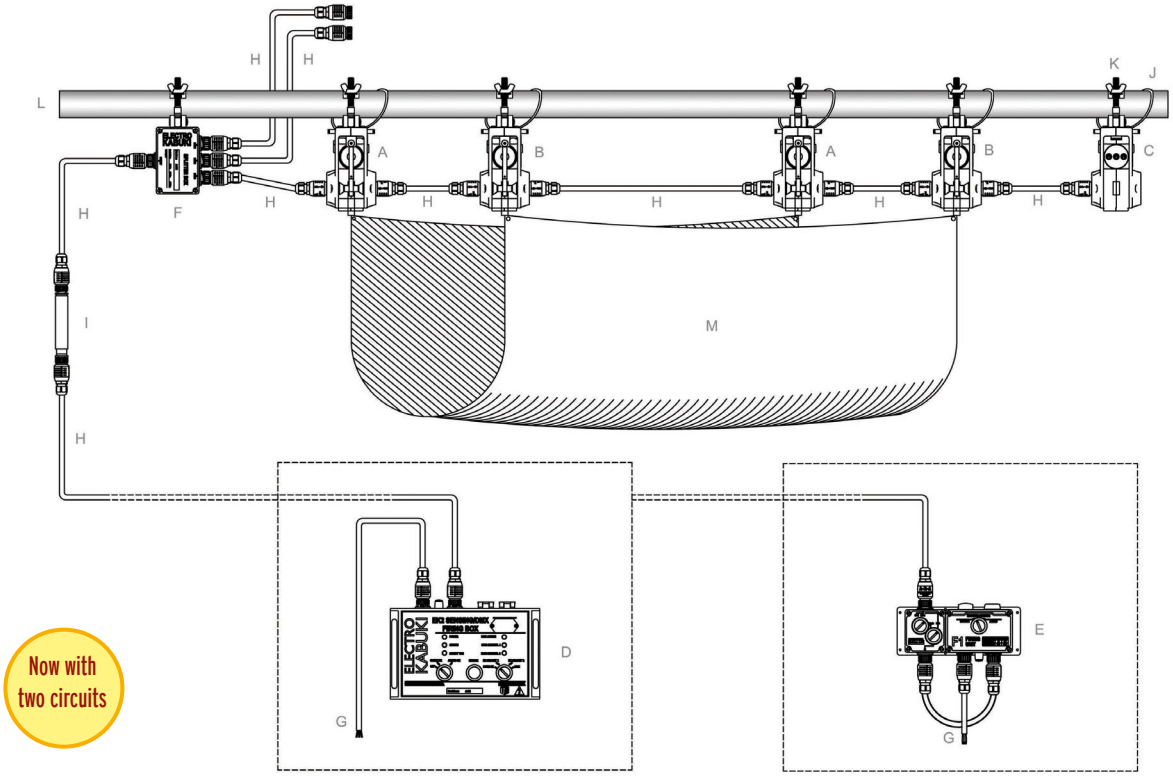
ELECTRO KABUKI

The EK2 is the latest development of the highly successful Electro Kabuki system. At the heart of each unit is a powerful and dependable magnet which holds a pivoting hook. That's where you hang your load – whether it's for a curtain release, car reveal or a special effect drop. The system has now progressed into being a two-circuit system capable of "Flop and Drops". Typically, a "Flop and Drop" may be a flag or banner which firstly drops into view and then drops to the floor at the end of the scene. For maximum versatility the new firing boxes allow you to select either Circuit 1 or 2 or both. Furthermore, you can now choose between a Standard Firing Box or the DMX version. By using the DMX firing box you will also maximise the feedback information you gain from the LED status Indicators. On page 159 we have also included some useful Holding Magnets and a small Shot Bolt. Flints can also supply heavy-duty shot bolts and rotary solenoids. For projects outside the UK other voltages can be supplied.

FLOP AND DROP BASIC LAYOUT



HOW IT WORKS

The basic system really could not be simpler!

Each Electro Kabuki unit has a socket on each side. One is coloured blue and the other is coloured white. Each cable has a plug on each end. Yes, you've guessed, one is white and one is blue. Do I need to go any further?! Wiring up really is that simple.

- Just purchase a firing box and a "Power-In" cable – this cable has one end plain for you to attach your preferred plug type
- Purchase as many Electro Kabuki units as you need to perform your drop. Spacing for drapes is generally 1.0 – 1.5 m. They can be selected with clamps so the units can be attached directly to flying bars
- The DMX firing box requires an end of line unit for each branch
- Purchase a long Link Cable to reach from the control box to the first unit
- Purchase enough short Link Cables to join up all the other units
- Plug the system in
- Select Circuit 1, Circuit 2 or both
- Check continuity
- Press the fire button

"Flop and Drop" Arrangement

If you require a "Flop and Drop" you will need to buy Electro Kabukis with two different circuits. Just select the desired circuit on the firing box for each part of the drop. Don't worry if you want to use them all together at another date. You can just select "Both" on the firing box. No extra cabling is required, all the cables can operate two circuits. Rather than positioning the units side by side, as shown in the diagram, you can also use the new "Back to Back" Bracket [see next page].

KEY TO PARTS

- **A** EK2 Electro Kabuki Circuit 1
- **B** EK2 Electro Kabuki Circuit 2
- **C** End of Line Indicator
- **D** Sensing/DMX Firing Box
- **E** Basic Firing Box
- **F** Splitter Box [optional]
- **G** Power In Cable
- **H** Link Cable [various lengths]
- **I** Cable Connector
- **J** Safety Bond
  [a soft loop formed in 3 mm Ø wire will pass through the hole]
- **K** Clamp for 42 – 52 mm tube
- **L** Scaffold Tube [page 232], Truss Chord or Flying Bar
- **M** "Flop and Drop" Cloth [special item made to order]

Safety Information

The function of the EK2 Electro Kabuki System 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 an instruction sheet. A full manual is available to download from the downloads section of our website – www.flints.co.uk. It is the user's responsibility to read and understand the manual before using the system. It is important that the person specifying and operating suspension equipment is competent to do so.

EK2 ELECTRO KABUKI LOAD RELEASE MECHANISM

Shown with half coupler sold separately.

A
B

N

EK2 Electro Kabuki Units This award-winning design will reliably release weights of up to 50 kg. 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 latest 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 can be easily daisychained. The body has a thread at the top and at the back to take M12 bolts [max depth 20 mm]. Manfrotto half couplers can be attached to make a quick fixing to scaffold tubes.

- ✔ Now available in two circuits
- ✔ Sound dampened
- ✔ Now fitted with blue LED status lamp
- ✔ Built-in safety catch
- ✔ Also available in 110 V 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 for the latest details

SPECIFICATION: Fitted with weatherproof AMP CPC Series 1 connectors. Power consumption: 6.6 W [at 20°C magnet coil temperature]. Weight: 1.4 kg.

❑ Supplied with detailed instructions.

SAFETY	Breaking Load	Safety Factor	SWL
	100 kg	2 to 1	50 kg

EK2 Electro Kabuki	channel	code	price
For 230 V AC supply	1	SOLEK2P230C1	£299.00
For 230 V AC supply	2	SOLEK2P230C2	£299.00
For 110 V AC supply	1	SOLEK2P110C1	£299.00
For 110 V AC supply	2	SOLEK2P110C2	£299.00
K Manfrotto half coupler 300 kg + bolt		SOLEKMF300	£23.41
N Back-to-back bracket [includes coupler]		SOLEKBTB	£21.33
Flight case for up to 15 units		SOLEKFC15	£880.00
Flight case for up to 30 units		SOLEKFC30	£1,500.00

For a full range of Safety Bonds see page 197.

TRADELINE Orders over £5,000.00 get 5% off

General Solenoid Care

- ✔ Keep the matching surfaces spotlessly 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.
- ✔ 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 slightly different voltage to release.
- ✔ If you are bolting directly to the Electro Kabuki via the M12 threaded inserts please make sure the bolt length is correct. Using a bolt which is too long could damage the unit.
- ✔ A cable securing clip is provided on the new units but please don't yank or carry the units by swinging them from the cables!

EK2 SENSING/DMX FIRING BOX

D

EK2 Sensing/DMX Firing Box This is the very latest design of control box which now serves five purposes.

Compatible with previous EK Kabuki models

- ✔ Checks the status of the system prior to firing [i.e. the position of the safety catches on the mechanisms and the continuity of the cabling circuit]
- ✔ Houses a push button for local firing of the units
- ✔ Controls which units are fired when the push button is used [i.e. Circuit 1, Circuit 2 or both]
- ✔ Houses DMX circuitry for remote firing of the units [i.e.Circuit 1, Circuit 2 or both]
- ✔ Capable of firing up to 200 Electro Kabuki 230 V AC units, or 75 Electro Kabuki 110 V AC units
- ✗ Not weatherproof

SPECIFICATION: Fitted with colour-coded AMP CPC Series 1 connectors. Fuse rating: 8 A. The power cable is listed below and the other cables are listed in the wiring section opposite. Weight: 2.65 kg.

❑ Supplied with detailed instructions.

EK2 Sensing/DMX Firing Box	code	price
EK2 Sensing/DMX Firing Box	SOLAF2	£1,570.00
Power feed cable 2 m [AMP to bare]	SOLB2A	£20.00

BASIC FIRING UNIT

E

Basic Firing Unit This basic unit now allows the operator to select Circuit 1, Circuit 2 or both but does not house DMX or sensing circuitry.

SPECIFICATION: Fitted with weatherproof colour-coded AMP CPC Series 1 connectors, two fuse holders [one spare fuse] and a LED light to show when the system is armed. Weight: 1.5 kg.

❑ Supplied with: detailed instructions.

Basic Firing Unit	code	price
Firing Unit 110/230 V	SOLAF3	£540.00
Power feed cable 2 m [AMP to bare]	SOLB2A	£20.00

SPLITTER BOX

F

Splitter Box Although the Electro Kabuki mechanisms can be easily daisychained, there are still times when a splitter box can be useful. If you have three drops in different locations in a grid, or a high ceiling, a single cable can be run to a splitter box and then sent in three directions to the mechanisms.

SPECIFICATION: Fitted with an M12 threaded insert for easy connection to hook clamps or half couplers. Weight: 0.97 kg.

Splitter Box	code	price
Three-way splitter	SOLEKASP3	£159.99
K Manfrotto half coupler 300 kg + bolt	SOLEKMF300	£23.41

END OF LINE UNIT

C

End of Line Unit This unit forms part of the circuitry which proves electrical continuity in the cabling. Only used in conjunction with the Sensing/DMX Firing Unit. The unit has three switches, all of which should be on for a single chain of Kabukis. Individual switches should be used when two or three chains of Kabukis are used in conjunction with the splitter box. A green LED on the unit indicates the cables are correctly connected.

End of Line Unit	code	price
	SOLAEOLI	£244.00

WIRING OPTIONS & ACCESSORIES

I

H

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 female connector [socket]. The mechanisms and the firing box are colour coded to match. The AMP connectors used on the cables are weatherproof 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. Please note that it is not possible to join the cables together without a connector (SOLA1C).

✔ Quick ✔ No specialist skills required

Standard Cable Lengths	code	Tradeline
G Power in supply cable 2 m [AMP to bare]	SOLB2A	£20.00
500 mm length	SOLA05A	£28.00
2 m length	SOLA2A	£31.85
H 5 m length	SOLA5A	£38.65
10 m length	SOLA10A	£49.25
20 m length	SOLA20A	£71.25
30 m length	SOLA30A	£93.25
I Connector	SOLA1C	£30.00

Non-Standard Cable Lengths	code	Tradeline
Power-in blue AMP connector [fitted to your cable]	SOLAMPSF	£11.30
Power-out white AMP connector [fitted to your cable]	SOLAMPPF	£11.30
4 x 1.5 mm² black cable [price per metre]	SOLCABLE	£2.00

Spares and Accessories for Solenoids	code	Tradeline
Spare coupling rings and fitting tube [pack of 10]	SOLCRINGS10	£19.00
Spare connector caps [pack of 10]	SOLCCAPS10	£28.50
Clamp bolts [pack of 10] and Allen key	SOLCBOLTS10	£14.60
Strain relief clips [pack of 20]	SOLSRC20	£14.00
D-Rings [pack of 10] and velcro [2 m]	SOLDRVEL1	£15.62
24 V DC 8 A fuses for firing unit [pack of 10]	SOLF18A	£3.68
Old style plug for 24 V DC supply	SOLO1DC	£3.85
Old style rectifying plug for 240 V supply	SOLO2AC	£16.75

Wiring to plugs type SOLO1DC and SOLO2AC is as follows: earth on earth, live on terminal No.1, neutral on terminal No.2.

EK2 STARTER KITS

EK2 Electro Kabuki Starter Kits Electro Kabuki have put together these Starter Kits to give newcomers to the art of the reveal everything they need. Very popular among small companies and those wanting to try the system before making a bigger commitment. The kits have two EK2 circuit 1 units and two EK2 circuit 2 units so you can stage simple drops or impressive "flop and drops". They come in both a 230 V and a 110 V version. Please note: Electro Kabuki restricts the supply to one Starter Kit per end user company.

EK2 Electro Kabuki Starter Kit	each	total
Mechanisms and Clamps	weight [kg]	
2 x EK2 Unit, circuit 1, [no clamp]	1.40	2.8
2 x EK2 Unit, circuit 2, [no clamp]	1.40	2.8
4 x Manfrotto half coupler + bolt [loose]	0.25	1.0
Control		
1 x Basic A-F3Firing Box, 110/230 V	1.55	1.60
Standard Cables and Accessories		
1 x Power Cable	0.35	0.4
3 x 2 m Link Cable	0.35	1.1
1 x 20 m Link Cable	3.15	3.2
Shipping details		
Total net shipping weight	12.70 kg	
Total gross shipping weight	14.00 kg	

EK2 Electro Kabuki Starter Kit	code	Tradeline
230 V	SOLA0900145	£1,400.00
110 V	SOLA0900146	£1,400.00

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 cannot 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 forced misalignment. Finally, keep the magnet faces spotlessly clean.