

The innovative design of the Pantograph allows Lights to be placed closer to the ceiling than ever before. A complete new range of top and bottom attachments have been designed to reduce at minimum the closed length. Entirely produced in Aluminum (P-Al MgSi UNI3569) and according to DIN 15560-46 it is available in two different extension: 2m (79") and 3.8m (150") long. The load is supported by a steel cable of 2mm diameter (safety factor 12). Loads up to 12kg (26.4lbs) can be supported by the patented friction device, while loads up to 18kg (39.7lbs) require the use of optional springs.

By turning the colored notched ring you can adjust the pantograph's friction; this will ensure that the load remains stable when set in position, but that it will move smoothly up and down when necessary. In any case, it is always advisable to use the springs to aid raising your pantograph.

One of important feature of this pantograph is the possibility to customize it in order to meet your needs. You just need to choose between the two different extension (2m - 79" or 3.8m - 150"), then decide the proper top and bottom attachment and, if necessary, add one or two counterbalance spring depending of the foreseen load.

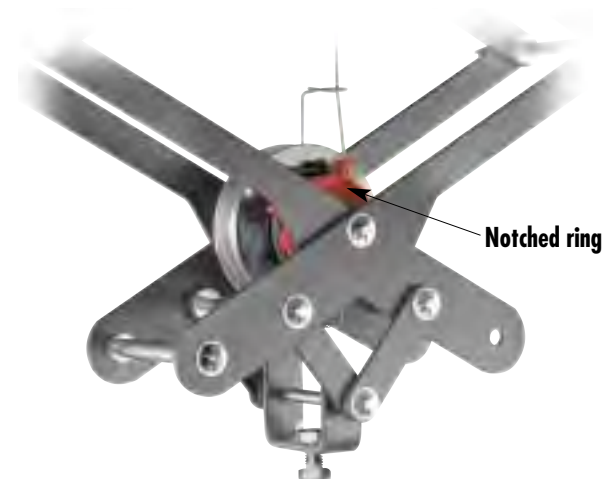
How to build the product code:

- 1° Choose the PANTOGRAPH length and write the Ref code in Field 1
- 2° Choose the SPRING type and put the Ref code in Field 2
- 3° Choose the TOP ATTACHMENT and put the Ref code in Field 3
- 4° Choose the BOTTOM ATTACHMENT and put the Ref code in Field 4


		PRODUCT CODE			
		FIELD 1	FIELD 2	FIELD 3	FIELD 4
Components	Ref	FF3512	A	5	9
PANTOGRAPHS					
Pantograph 2m - 79"	FF3512	↑			
Pantograph 3.8m - 150"	FF3514		↑		
SPRINGS					
Type 4	A		↑		
Type 4+4	B			↑	
Type 12	C				↑
Type 4+12	D				
None	N				
TOP ATTACHMENTS					
FF3540 Type 60 carriage	0				
FF3541 Type 80 carriage	1				
FF3545 28mm - 1-1/8" pin	5				
FF3546 16mm - 5/8" pin	6				
FF3547 coupler	7				
FF3548 16mm - 5/8" bushing	8				
BOTTOM ATTACHMENTS					
FF3546 16mm - 5/8" pin	6				
FF3548 16mm - 5/8" bushing	8				
FF3549 28mm - 1-1/8" bushing	9				
FF3544 M10x30 screw and nut	4				


For your convenience we already build the codes for the most common version.

Pantograph with top 16mm-5/8" bushing and bottom 16 mm-5/8" pin	
Code	Description
FF3512N86	Pantograph Top 2C
FF3514N86	Pantograph Top 4C
Pantograph with top 28mm-1-1/8" pin and bottom 28mm-1-1/8" bushing	
Code	Description
FF3512N59	PANTOGRAPH TOP 2C
FF3512A59	PANTOGRAPH TOP 2C W/Type 4 Spring
FF3512B59	PANTOGRAPH TOP 2C W/2 Type 4 Springs
FF3512C59	PANTOGRAPH TOP 2C W/Type 12 Spring
FF3512D59	PANTOGRAPH TOP 2C W/Type 4&12 Springs
FF3514N59	PANTOGRAPH TOP 4C
FF3514A59	PANTOGRAPH TOP 4C W/Type 4 Spring
FF3514B59	PANTOGRAPH TOP 4C W/2 Type 4 Springs
FF3514C59	PANTOGRAPH TOP 4C W/Type 12 Spring
FF3514D59	PANTOGRAPH TOP 4C W/Type 4&12 Springs








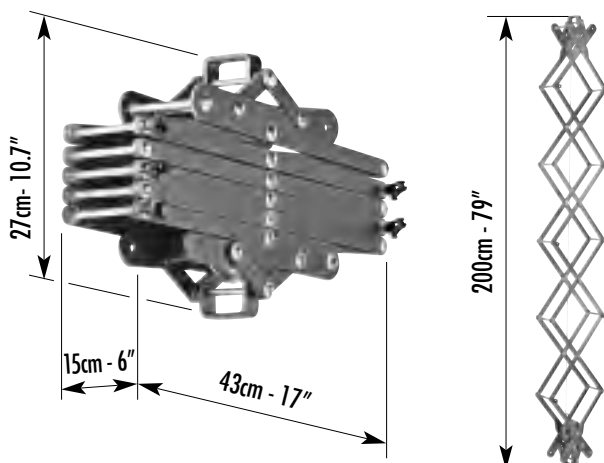
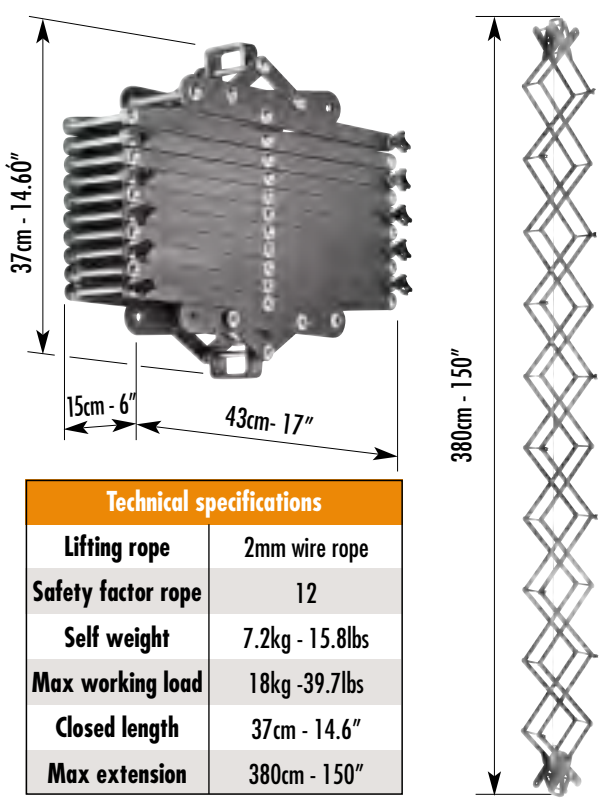
When choosing the additional spring(s) for your pantograph, you will first need to know exactly which model of pantograph you have, in order that you can select the spring of the correct length. If you have one of the new compact pantographs (with grey-painted "scissors"), look at the colour of notched ring the 2m (79") version has a red notched ring, while the 3.8m (150") version has a blue notched ring. After having identified the length of the pantograph, choose the appropriate spring(s) by referring to the table below.





Additional springs for pantograph Top 2C	
FF3531	
SPRING TYPE 4 RED	
FF3532	
SPRING TYPE 12 RED	

Additional springs for pantograph Top 4C	
FF3533	
SPRING TYPE 4 BLUE	
FF3534	
SPRING TYPE 12 BLUE	

Spring type	Counter balanced weight
Without spring	From 0 to 4kg (8.8lbs)
Type 4	From 3kg (6.6lbs) to 8kg (17.6lbs)
Type 4 + Type 4	From 8kg (17.6lbs) to 14kg (30.8lbs)
Type 12	From 9kg (19.8lbs) to 16kg (35.3lbs)
Type 4 + Type 12	From 13kg (28.6lbs) to 18kg 39.7lbs)

TOP ATTACHMENTS				
Code: FF3545	Code: FF3540	Code: FF3541	Code: FF3548	Code: FF3547
28mm (1-1/8") Male attachment	Spring braked dismantable carriage for IFF rail Type 60	Spring braked dismantable carriage for IFF rail Type 80 and 50	16mm (5/8") female attachment	Aluminum clamp for pipe diam 42÷52mm (1-1/4" ÷ 2")
				

PANTOGRAPHS																													
Code: FF3512	Code: FF3514																												
																													
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BOTTOM ATTACHMENTS			
			
Code: FF3549	Code: FF3548	Code: FF3546	Code: FF3544
28mm - (1-1/8") Female attachment	16mm - (5/8") Female attachment	16mm - (5/8") Male attachment	M 10x30mm screw with nut



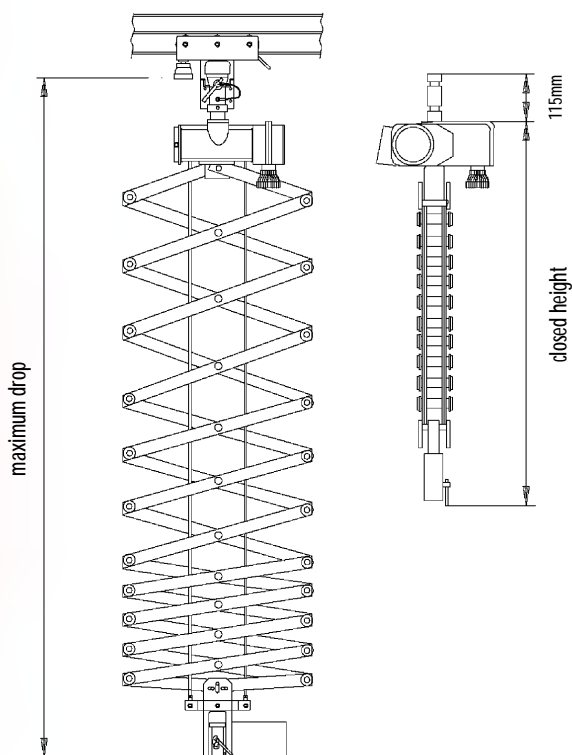
MONO 3 P.O. PANTOGRAPH

MAX DROP 3.0m
MAX LOAD 40kg



IFF Pole Operated Pantograph suspend and position luminaires with loads of up to 40kg. It is a versatile suspension unit for small, medium and large studios.

The pantograph can be extended via twin wire ropes. A specially designed sheet metal scissors mechanism adds stability and supports the luminaire power cable. It is dynamically and statically irreversible thanks to its static and dynamic efficiency (<0.5). The pantograph is manufactured in accordance with the DIN 15560-46.



Part number	3800,30
Maximum load	40kg
Maximum drop	3m
Closed height	0.59m
Width	0.48m
Self weight	13kg

Part number	3800,30
Height adjustment	local pole operated
Lifting rope	Ø 2mm x 2pcs
Top fixing	28mm (1 1/8") male spigot
Bottom fixing	28mm (1 1/8") female socket

On request: Electric cable and socket for luminaire



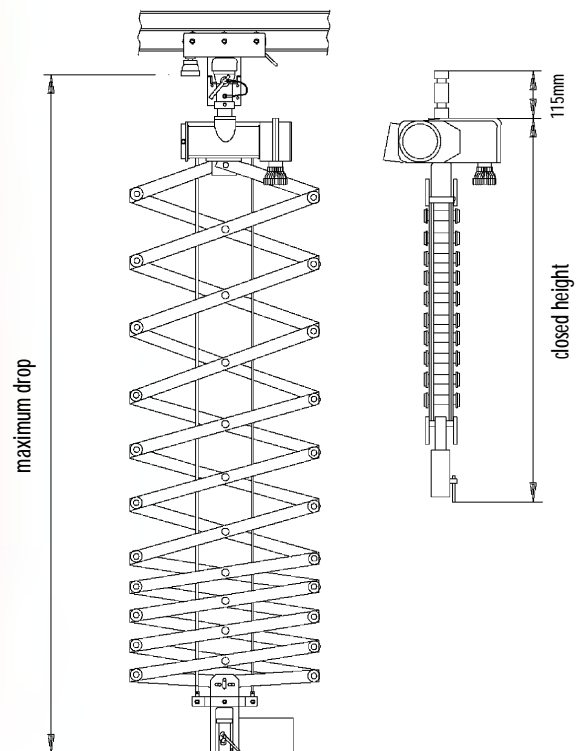
MONO 4 P.O. PANTOGRAPH

MAX DROP 4.0m
MAX LOAD 40kg



IFF Pole Operated Pantograph suspend and position luminaires with loads of up to 40kg. It is a versatile suspension unit for small, medium and large studios.

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Part number	3800,40
Maximum load	40kg
Maximum drop	4m
Closed height	0.65m
Width	0.48m
Self weight	14kg

Part number	3800,40
Height adjustment	local pole operated
Lifting rope	Ø 2mm x 2pcs
Top fixing	28mm (1 1/8") male spigot
Bottom fixing	28mm (1 1/8") female socket

On request: Electric cable and socket for luminaire

P. O. PANTOGRAPHS



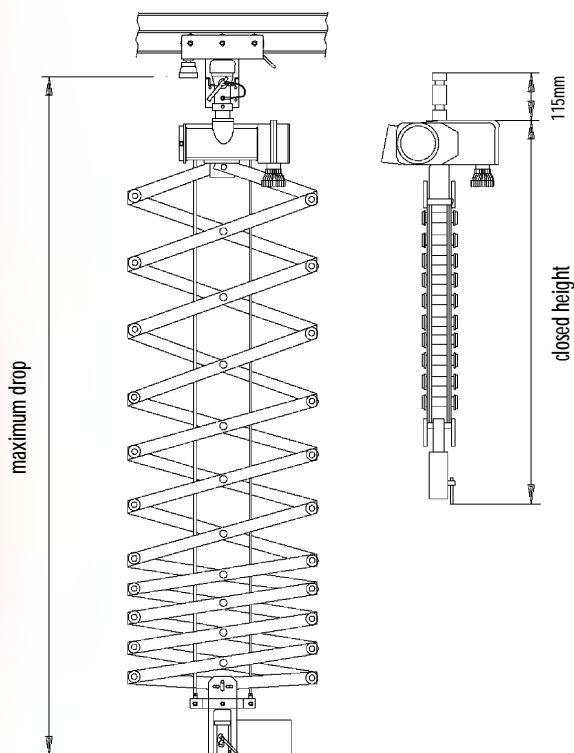
MONO 5 P.O. PANTOGRAPH

MAX DROP 5.0m
MAX LOAD 40kg



IFF Pole Operated Pantograph suspend and position luminaires with loads of up to 40kg. It is a versatile suspension unit for small, medium and large studios.

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Part number	3800,50
Maximum load	40kg
Maximum drop	5m
Closed height	0.71m
Width	0.48m
Self weight	15kg

Part number	3800,50
Height adjustment	local pole operated
Lifting rope	Ø 2mm x 2pcs
Top fixing	28mm (1 1/8") male spigot
Bottom fixing	28mm (1 1/8") female socket

On request: Electric cable and socket for luminaire



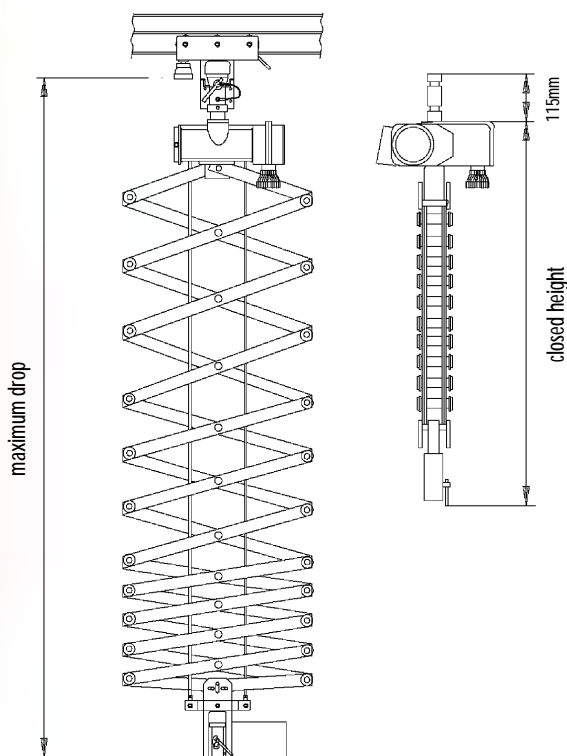
MONO 6 P.O. PANTOGRAPH

MAX DROP 6.0m
MAX LOAD 40kg



IFF Pole Operated Pantograph suspend and position luminaires with loads of up to 40kg. It is a versatile suspension unit for small, medium and large studios.

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Part number	3800,60
Maximum load	40kg
Maximum drop	6m
Closed height	0.89m
Width	0.48m
Self weight	16kg

Part number	3800,60
Height adjustment	local pole operated
Lifting rope	Ø 2mm x 2pcs
Top fixing	28mm (1 1/8") male spigot
Bottom fixing	28mm (1 1/8") female socket

On request: Electric cable and socket for luminaire

P. O. PANTOGRAPHS



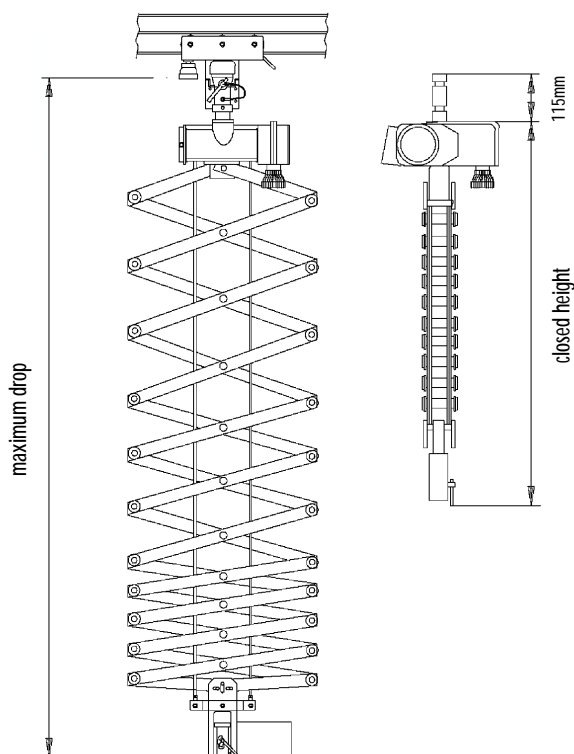
DUO 5 P.O. PANTOGRAPH

MAX DROP 5.0m
MAX LOAD 40kg



IFF Pole Operated Pantograph suspend and position luminaires with loads of up to 40kg. It is a stable and versatile suspension unit for medium and large studios.

This manual pantograph incorporates a twin wire rope system for raising and lowering the luminaire with a double scissors mechanism to provide stability and support the luminaire cable. The pantograph is dynamically and statically irreversible thanks to its static and dynamic efficiency (<0.5). The pantograph is manufactured in accordance with the DIN 15560-46.



Part number	3808,50
Maximum load	40kg
Maximum drop	5m
Closed height	0.92m
Width	0.48m
Self weight	17kg

Part number	3808,50
Height adjustment	local pole operated
Lifting rope	Ø 2mm x 2pcs
Top fixing	28mm (1 1/8") male spigot
Bottom fixing	28mm (1 1/8") female socket

On request: Electric cable and socket for luminaire



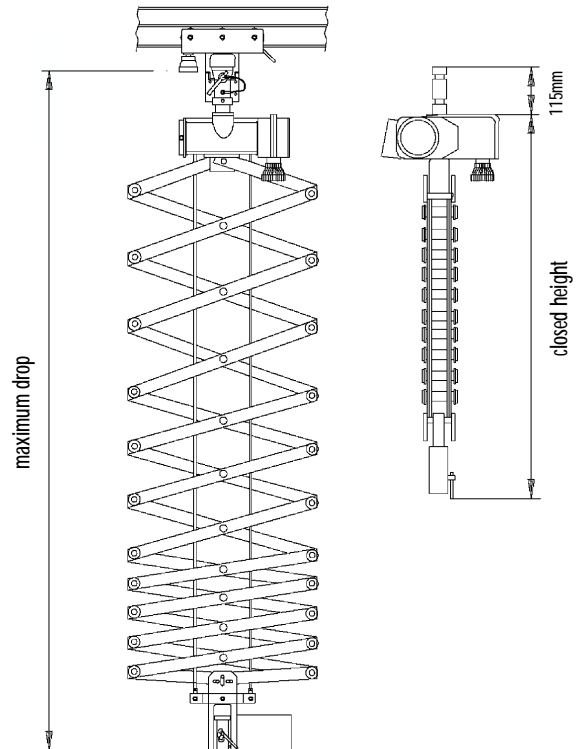
DUO 6 P.O. PANTOGRAPH

MAX DROP 6.0m
MAX LOAD 40kg



IFF Pole Operated Pantograph suspend and position luminaires with loads of up to 40kg. It is a stable and versatile suspension unit for medium and large studios.

This manual pantograph incorporates a twin wire rope system for raising and lowering the luminaire with a double scissors mechanism to provide stability and support the luminaire cable. The pantograph is dynamically and statically irreversible thanks to its static and dynamic efficiency (<0.5). The pantograph is manufactured in accordance with the DIN 15560-46.



Part number	3808,60
Maximum load	40kg
Maximum drop	6m
Closed height	1.04m
Width	0.48m
Self weight	19kg

Part number	3808,60
Height adjustment	local pole operated
Lifting rope	Ø 2mm x 2pcs
Top fixing	28mm (1 1/8") male spigot
Bottom fixing	28mm (1 1/8") female socket

On request: Electric cable and socket for luminaire

P. O. PANTOGRAPHS