

ACTA 20

# ACTA 20 MOTOR WINCH



A COSMOLIGHT BRAND



ADVANCED RIGGING

**ACTA<sub>20</sub>**

**ADVANCED COMPACT TOUGH ADAPTABLE**

ACTA 20 is the first product of IFF Advanced Rigging's revolutionary new concept for adaptable lifting devices. As one of the few companies in the world that exclusively designs and builds suspension systems for broadcast studios, theatres and auditoria, IFF Advanced Rigging have unsurpassed experience in this field and it is based on this experience that our R&D engineers have developed the new ACTA philosophy.



## ACTA 20

- Suitable for a vast range of lifting and suspension requirements
- Replaces most single-function hoists in an installation
- Modular and expandable
- Can be installed in any position: horizontal, vertical, upside down
- Easy to install, set up and maintain in any of its configurations
- Innovative design

The advantage of the ACTA 20 for the end user - studio designer, rigger or technician - is that this single motor winch answers most lifting and suspension needs, thus avoiding the use of a vast number of different single spec hoists in a studio, theatre or auditorium. This in turn means all stages of delivery, set-up and use can be dramatically streamlined – new studios can be completed faster, existing studios can be kept in perfect running order without maintenance delays.

ACTA 20 allows the system designer to quickly acquire great expertise with a single motor winch, rather than having to familiarise him or herself with a host of different single-purpose hoists, reducing the research time of the design process; it allows the installer or distributor to keep a single type of motor winch in stock for faster delivery and order turnaround; it allows the rigger to speed up studio installations; it allows the technician to respond more rapidly, with more precise skills and experience, to any maintenance needs, while also reducing his in-house stock of spare parts and accessories to a minimum.

### FF3904 MOTOR WINCH key features

	CE	®
Motor	0,55KW - 3Phase - 400VAC - 50Hz	2/3Hp - 3Phase - 208VAC - 60Hz
Motor Gear box	Total Gear Ratio 100:1 Angle of Slope 3°06' max torque 206N/m Permanent lubrication	
Travel	10m	32ft
Safe Working Load (on the ropes)	190kg	400lb
Self weight	55kg	120lb
Ropes*	4 AR32 19x7 steel ropes x 3.2mm diameter	
Lifting Speed	6m/min	9m/min
Dimensions	1000x320xH340mm	
Operating limits	1 top + 1 bottom adjustable limits	
Overtravel protection	1 top + 1 bottom adjustable limits	
Slack rope detection	one for each rope	
Overload detection	one for each pick-up point	

\* the motor winch unit is supplied as standard with 20m ropes, longer ropes are available on request. Designed in accordance with Din 15560-46, BOMCI and ILL 1340 standards



The load sensors for over- and underload detection on each rope are easily accessible by simply removing the unit number panel with one screw.



For faster set-up and configuration, top and bottom end stop limits are adjustable from outside the ACTA 20 housing using only a screwdriver to adjust or fine-tune the dials.



Any type of electrical socket can be supplied (32A IEC309, 16A IEC309, Schuko, BS 1363, DMX, Audio)

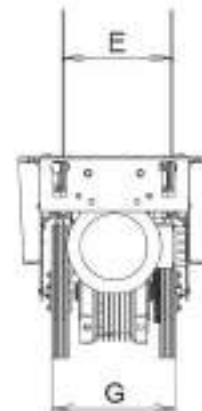
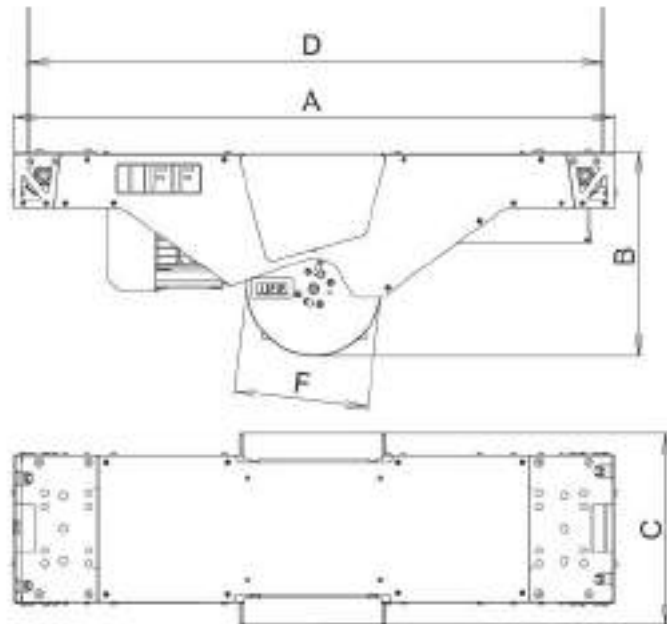


The ACTA 20's electrical control box is positioned so as to be easy to open and inspect for maintenance and check-up operations.



The ACTA 20 is designed to allow the ropes to exit in three different directions (vertical up, vertical down, horizontal), thus allowing the winch unit itself to be positioned almost anywhere relative to the load direction.

## ACTA 20 DIMENSIONS



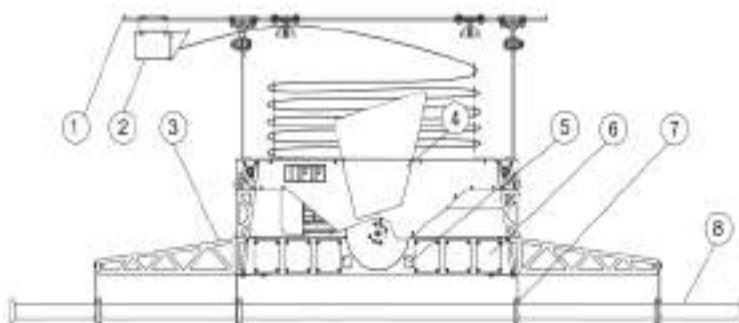
DIMENSIONS	CE	Ⓐ
A	1004mm	39,53"
B	340mm	13,39"
C	320mm	12,6"
D	960mm	37,8"
E	180mm	7,09"
F	220mm	8,66"
G	207mm	8,15"

# ACTA 20 STUDIO LIFT



## ACTA 20 STUDIO LIFT

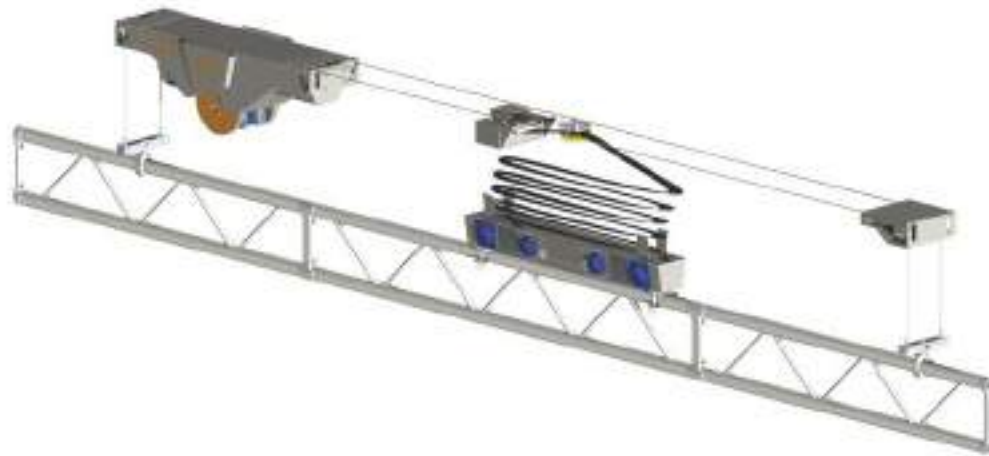
The self-climbing configuration is one of the most common uses of the ACTA 20, as well as the easiest and fastest to install. The ropes exit the unit vertically upwards and attach to the studio ceiling rig via a pre-mounted rail. Travel is up to 10m (32ft), while the under-hanging batten pipe can be up to 3m (9'10") long, with up to 6 lighting circuits to respond to most common requirements. Thanks to the reduced dimensions of the ACTA 20 motor unit, making it ideal for smaller or lower studios where hoist height/size is of key importance.



1. Pre-mounted 1.5m (5ft) rail (longer on request) for fast and easy installation.
2. Terminal box for lighting circuits, motor power feed, remote control and low-voltage circuit connections.
3. Additional support brackets (200mm (7.8in)), for under-hanging batten pipes longer than 2m (6'6").
4. High visibility, user-changeable unit number.
5. Low-voltage circuits (up to 2 x DMX or 1 x Ethernet, on request also Video and Audio).
6. Up to 6 lighting circuits – any type of electrical socket can be supplied (Schuko, IEC309 etc).
7. Batten brackets – different bracket types can support the batten pipe from the top or from the side. The latter bracket type allows the use of free-rolling carriages.
8. Under-hanging batten – up to 3m (9'10") long – can be a Ø50mm (2") pipe or an IFF rail the use of free-rolling carriages.

### FF3904PS STUDIO LIFT key features

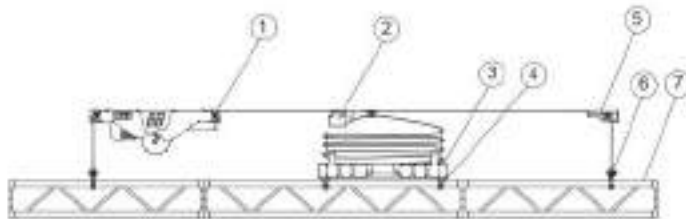
	CE	UL
Connector strip	1000mm	39"
Batten pipe/rail	From 1m to 3m	From 39" to 118"
Lighting circuits	Up to 6 circuits	
Low voltage circuits	1 ethernet or 2 Dmx others on request (video, audio etc.)	
Safe Working Load	100kg	220lb
Self weight	70kg	154lb
Travel	10m	32'
Soft start - soft stop	Frequency inverter (optional)	



## ACTA 20 DUAL LIFT

The ceiling-mounted Dual Lift configuration is ideal for supporting long batten pipes for TV, theatrical and auditorium applications. This configuration uses two accessories – the double rope diverter pulley and the lighting circuit distributor. Travel is up to 10m (32ft), while the under-hanging batten pipe can be between 3m (9'10") and 5m (16ft) long, with up to 6 lighting circuits to respond to most common requirements. Lifting capacity is 190kg (400lb), minus the weight of the combination of batten and circuit distributor, resulting normally in 140kg (300lb) to 160kg (350lb) of equipment load.

In the example shown, the lighting support is a flat aluminium truss, but any type of single pipe or ad hoc support structure can be fitted.



1. Motor winch unit
2. Terminal box for lighting circuits, moto power feed, remote control and low-voltage circuit connections.
3. 1m (39") long connector strip for up to 6 lighting circuits (any type of electrical socket can be supplied: Schuko, IEC309, etc).
2. Low-voltage sockets (DMX, Ethernet, Adio/Video, etc).
4. Connector strip clamp for Ø50mm (2") pipe (clamps for other support structures available on request).
5. Diverter pulley for two ropes.
6. Hanging clamp/bracket with rope balancing system for Ø50mm (2") pipe.
7. Lighting support truss (any type of support structure can be fitted).

### FF3904PD DUAL LIFT key feature

	CE	Q
Connector strip	1000mm	39"
Batten pipe/rail	From 3m to 5m	From 10' to 16'
Lighting circuits	Up to 6 circuits	
Low voltage circuits	1 ethernet or 2 Dmx others on request (video, audio etc.)	
Safe Working Load*	140-160kg*	300-350lb*
Self weight	80-100kg**	175-220lb**
Travel	10m	32'
Soft start - soft stop	Frequency inverter (optional)	

\* lifting capacity is 190kg (420lb). Max load is calculated subtracting a batten self weight of 40-50kg (88-110lb) including Lighting Circuit Distributor

\*\* this is a rough guide, self weight of the dual lift configuration depends on the batten pipe dimension and on the number of lighting circuits

## ACCESSORIES

The advantage of the ACTA 20 system is that the base motor winch unit can be adapted to various applications simply by adding the accessory parts shown below. The parts shown are standard, but other made-to-measure accessories and extensions of the ACTA 20 system can also be designed and built for you – contact our Technical Department if you have specific needs and requirements.



**Lighting circuit distributor**  
**Material: black painted steel.**  
 Includes: top terminal box; flat cable for 6 lighting circuits and 1 x Ethernet (or 2 x DMX); 1m long connector strip for up to 6 lighting sockets (any socket type can be supplied).  
 Top and bottom attachment system will be supplied according to customer request (standards are clamps for Ø50mm (2") pipes or for IFF type 80 rail).



**Four-wheel diverter pulley**  
**Material: black painted steel**  
 Designed to change rope direction for between 1 and 4 ropes (with 11mm (0.43in) inter-axis) from horizontal to vertical. Bearing-mounted pulley wheel for smooth, silent operation.



**Double rope diverter pulley**  
**Material: black painted steel**  
 Designed to change rope direction for a pair of ropes (with 180mm (7.08in) inter-axis) from horizontal to vertical. Bearing-mounted pulley wheels for smooth, silent operation.



**Two rope merger**  
**Material: black painted steel**  
 Designed to reduce the inter-axis distance between two ropes from 180mm (7.08in) to 11mm (0.43in) for in-line batten pipe applications with motor winch installed centrally and two ropes exiting each end of the winch. Funnel is installed flush with the motor winch where the ropes exit the unit.



**Four rope merger**  
**Material: black painted steel**  
 Designed to reduce the inter-axis distance between four ropes from 180mm (7.08in) to 11mm (0.43in) for in-line batten pipe applications with the motor winch mounted at one end and all four ropes exiting the same end of the winch. Funnel is installed flush with the motor winch where the ropes exit the unit.



**Single hook with rope balancing system**  
**Material: polished aluminium and black painted steel**  
 Designed to support Ø50mm (2") batten pipe structure from a double rope - the rope balancing system automatically compensates different rope lengths.  
 Includes: hook; rope balancing system; 2 x turn buckles.



**Single mounting clamp**  
**Material: polished aluminium**  
 Strong aluminium clamp for attaching motor winch unit or any accessory to Ø50mm (2") pipe or truss grid.



**Double clamp bracket**  
**Material: polished aluminium**  
 Includes: two clamps for mounting ACTA 20 winch unit or diverter pulley to pipe or square truss grid. Standard inter-axis distance between the two clamps is either 229mm (9.41in) (for truss type 30) or 350mm (13.78in) (for truss type 40), but other inter-axis measurements are available on request.



**IFF rail clamp**  
**Material: white zinc steel**  
 Standard IFF rail clamp for attaching motor winch unit or accessory to IFF rails type 50 or 80 or to IPE80 steel beams.

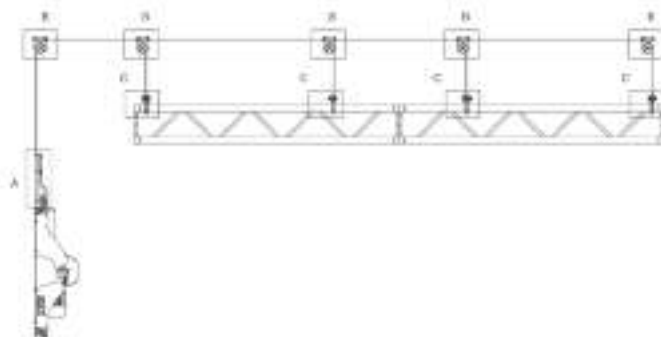


**Unistrut interface clamp system**  
**Material: white zinc steel**  
 Allows motor winch unit or accessories to be mounted on any size of steel beam (either orthogonal or parallel).

## MORE ACTA 20 CONFIGURATIONS

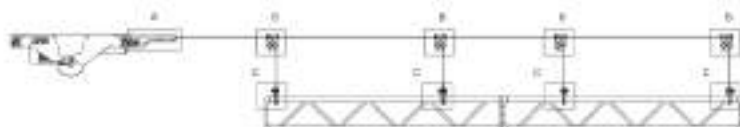
The examples below show the extreme flexibility and adaptability of the ACTA 20 system. The motor winch unit can be installed centrally, to one side or even vertically on a side wall with diverter pulleys; or it can be used alone, ceiling-mounted, as a scenery hoist.

### ACTA 20 WALL BATTEN LIFT



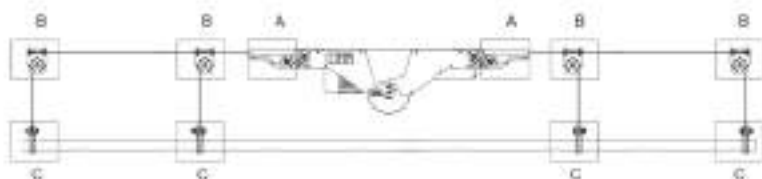
- 1 x ACTA 20 motor winch
- 1 x four rope merger (ref. A)
- 5 x four-wheel diverter pulley (ref. B)
- 4 x single hook (ref. C) for lighting power output, use 1 x lighting circuit distributor
- Lifting capacity: 190kg (400lb) on the ropes \*
- Batten pipe length: 8m (26ft) \*\*

### ACTA 20 CEILING BATTEN LIFT



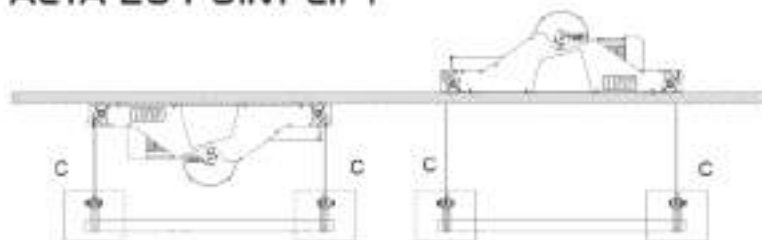
- 1 x ACTA 20 motor winch
- 1 x four rope merger (ref. A)
- 4 x four-wheel diverter pulley (ref. B)
- 4 x single hook (ref. C) for lighting power output, use 1 x lighting circuit distributor
- Lifting capacity: 190kg (400lb) on the ropes \*
- Batten pipe length: 8m (26ft) \*\*

### ACTA 20 LINEAR LIFT



- 1 x ACTA 20 motor winch
- 2 x two rope merger (ref. A)
- 4 x four-wheel diverter pulley (ref. B)
- 4 x single hook (ref. C) for lighting power output, use 1 x lighting circuit distributor
- Lifting capacity: 100kg (400lb) on the ropes \*
- Batten pipe length: 8m (26ft) \*\*

### ACTA 20 POINT LIFT



- 1 x Acta 20 motor winch
- 2 x Single hook with rope balancing system (ref. C)
- Lifting capacity: 190kg (400lb) on the ropes \*

Suitable for under and over grid application

\* 190kg (400lb) on the ropes means that the weight of supported pipes, beams or lighting circuit distributors must be subtracted from the total lifting capacity in order to calculate the net load capacity.

\*\* 8m (26ft) batten pipe length is the recommended maximum, but depends on the rigidity and strength of the pipe itself. Longer distances may be possible with especially rigid under-hanging structures that do not overload the winch unit's lifting capacity.

Under-hanging pipe/trusses are not supplied with the ACTA 20 system and must be ordered separately, or sourced locally.





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