



# The Bolex H16 range:

# four cameras to meet your every need, your every requirement

Bolex H16: a complete, functional and flexible filming system. At the heart of the system, four professional cameras:

- the RX-5 and SBM models, with film driven by spring motor or auxiliary electric motor;
- the EBM Electric and EL models, with film driven by built-in electric motor.

Each of these four cameras constitutes the basic item of equipment that can

be completed by a large number of accessories, extending the scope of your camera in any direction required, in accordance with your needs.

#### Bolex H16?

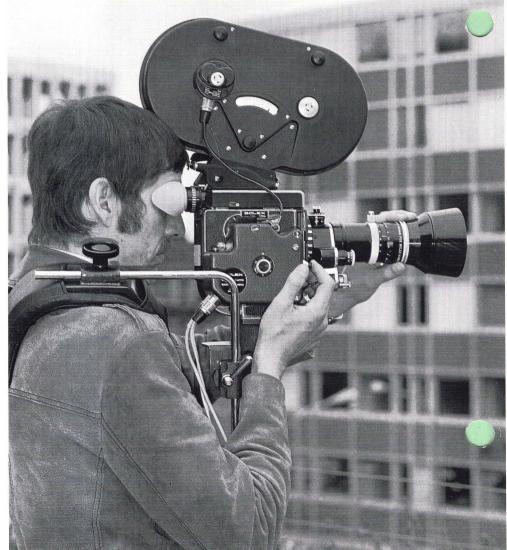
- Equipment tailored exactly to your requirements, consequently extremely good value, because you buy only the gadgets and refinements you really need.
- Equipment capable of rendering you invaluable services in all fields of

human activity: purely artistic creations, of course, but also documentaries and TV coverages, advertising films, films devoted to research and education in fields such as science, medicine, sport, art, industry, etc., etc.

A Bolex H16 movie-camera is a guarantee in itself. The guarantee offered by a high precision, exceptionally sturdy appliance, equipped with a top quality optical system: foolproof operation, steady, clear, properly exposed pictures.

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#### Mechanical system

Powerful spring motor with high precision governor (drives 5 m of film with a single winding). ● The camera can be fitted with an auxiliary electric motor. ● Shutter with variable opening angle (with the camera stopped as well as while filming); maximum opening 135°; shutter closes when camera stops.

Operation: normal forward motion, continuous and single-frame filming, full rewinding with hand crank. • Automatic threading; spool ejector; loop former. • Audible signal indicating passage of film.

Filming speeds 12, 16, 18, 24, 32, 48 and 64 f.p.s. + single frame.

#### **Optical system**

Reflex viewfinder with light captured through exceptionally sturdy, swivelling, misadjustment proof prism, mounted in front of the shutter. • No flicker; picture always visible. • Fine ground glass on prism itself. • Magnification 14 x. • Adjustable eyepiece: ± 5 diopters. Rubber eyecup, directional and can be folded over. • Viewfinder light trap. • Field of view corresponding to standard 16 mm projection field. • TV frame: 8.40 x 6.30 mm; R = 1.7 mm.

Lens turret for three "C" mount lenses.

• Thread diameter: 1" (25.4 mm). • Distance between bearing plane and lens focal plane: 17.52 mm. • Built-in filter slot for gelatine filters.

#### Light meter

The H16 RX-5 camera can be equipped with the Vario-Switar 100 POE lens with built-in light meter, which automatically sets the diaphragm during filming.

#### Synchronous sound recording

Camera equipped with ESM auxiliary motor: possibility of synchronization by crystal control or sync pulse equipment with automatic clapper, at 24 or 25 f.p.s.

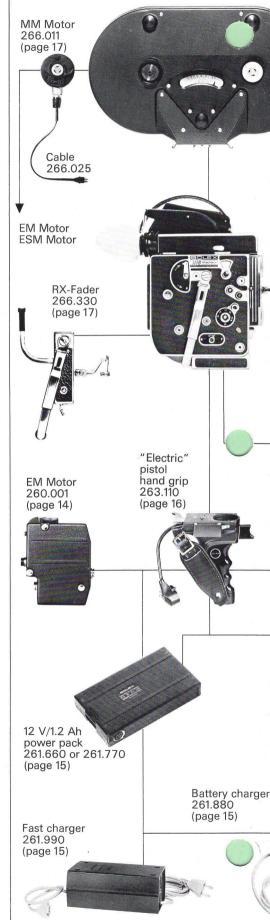
#### General

Capacity: all single or double perforated 16 mm films on 100 ft spools; possibility of fitting accessory 400 ft magazine. • Frame counter. • Counter in feet or in metres. • Front release for normal operation; side release for normal, continuous and single-frame operation (can be operated by cable).

H16 RX-5 camera

- with TV frame
- without TV frame

Codes: 210.020 210.025



# Lenses and principal accessories





#### **Mechanical system**

Powerful spring motor with high precision governor (drives 5 m of film with a single winding). • The camera can be fitted with an auxiliary electric motor. • Shutter with variable opening angle (with the camera stopped as well as while filming); maximum opening 135°; shutter closes when camera stops.

Operation: normal forward motion, continuous and single-frame filming, full rewinding with hand crank. • Automatic threading; spool ejector; loop former. • Audible signal indicating passage of film.

Filming speeds 12, 16, 18, 24, 32, 48 and 64 f.p.s. + single frame.

#### Optical system

Reflex viewfinder with light captured through exceptionally sturdy, swivelling, misadjustment proof prism, mounted in front of the shutter. • No flicker; picture always visible. • Fine ground glass on prism itself. • Magnification 14 x. • Adjustable eyepiece: ± 5 diopters. • Rubber eyecup, directional and can be folded over. • Viewfinder light trap. • Field of view corresponding to standard 16 mm projection field. • TV frame: 8.40 x 6.30 mm; R = 1.7 mm.

Very sturdy bayonet lens mount. • Bearing on three small tongues; centering diameter: 60 mm. • Easily adapted for most "C" mount lenses. • Distance between bearing plane and lens focal plane: 23.22 mm (17.52 mm with adapter for "C" mount. • Built-in, retractable, filter slot for gelatine filters.

#### **Light meter**

The H16 SBM camera can be equipped with the Vario-Switar 100 POE lens with built-in light meter, which automatically sets the diaphragm during filming.

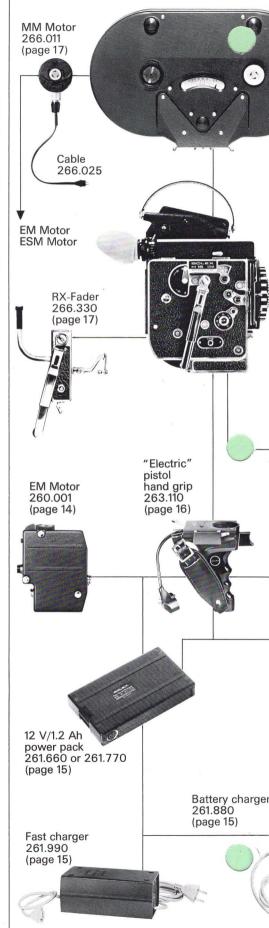
#### Synchronous sound recording

Camera equipped with ESM auxiliary electric motor: possibility of synchronisation by crystal control or sinc pulse equipment with automatic clapper, at 24 or 25 f.p.s.

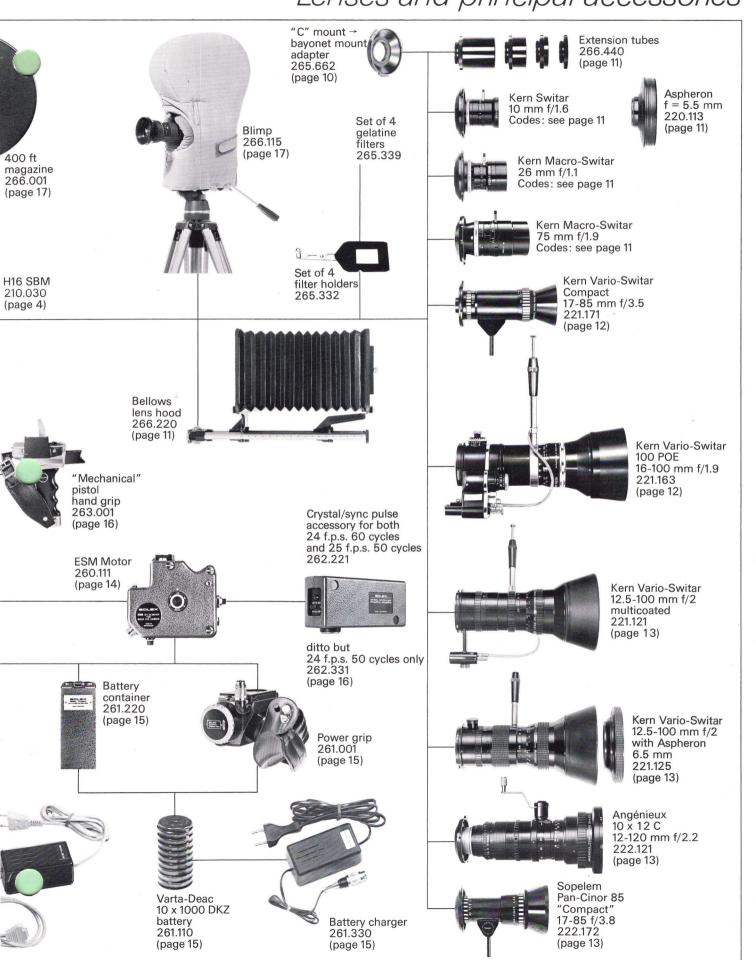
#### General

Capacity: all single or double perforated 16 mm films on 100 ft spools; possibility of fitting accessory 400 ft magazine. • Frame counter. • Counter in feet or in metres. • Front release for normal operation; side release for normal, continuous and single-frame operation (can be operated by cable).

H16 SBM camera Code: 210.030



# Lenses and principal accessories



## H16 EBM Electric



#### **Mechanical system**

Electric motor, electronically regulated.
• Shutter open to 170°; not automatically closed when camera stops.

Operation: normal forward motion, continuous operation, full rewinding with hand crank. • Automatic threading; spool ejector; loop former.

Filming speeds 10, 18, 24, 25 and 50 f.p.s.
• Speeds of 24 and 25 f.p.s. stabilized according to sync pulse standards.

Power supply

a) By Varta Deac 10 x 1000 DKZ battery housed in the compartment provided in the power grip. • Capacity 1 Ah. • Nominal voltage: 12 V. b) By 1.2 Ah power pack hanging from the shoulder. • Nominal voltage: 12 V.

Current supplied at all speeds, whether camera equipped with a 400 ft magazine or not: about 1 A. ● Capacity: approx. 2400 ft of film at + 20 °C.

#### **Optical system**

Reflex viewfinder with light captured through exceptionally sturdy, swivelling, misadjustment proof prism, mounted in front of the shutter. ● No flicker; picture always visible. ● Fine ground glass on prism itself. ● Magnification 14 x. ● Adjustable eyepiece: ± 5 diopters. ● Rubber eyecup, directional and can be folded over. ● Viewfinder light trap. ● Field of view corresponding to standard 16 mm projection field. ● TV frame: 8.40 x 6.30 mm; R = 1.7 mm.

Very sturdy bayonet lens mount. ● Bearing on three small tongues; centering diameter: 60 mm. ● Distance between bearing plane and lens focal plane: 23.22 mm (17.52 mm with adapter for "C" mount). ● Most "C" mount lenses easily adapted. ● Built-in, retractable, filter slot for gelatine filters.

#### Light meter

The H16 EBM Electric camera can be equipped with the Vario-Switar 100 POE lens with built-in light meter, which automatically sets the diaphragm during filming.

#### Synchronous sound recording

Possibility of synchronization by crystal control or sync pulse equipment with automatic clapper, at 24 or 25 f.p.s.

#### General

Capacity: single or double perforated 16 mm films on 100 ft spools; possibility of fitting accessory 400 ft magazine. • Counter in feet or in metres. • Release: a) when powered by Varta Deac 10 x 1000 DKZ battery, by twoway on-off switch on power grip; safety lock; b) when powered by 1.2 Ah power pack, by power and remote control cable plugged into an accessory base.

H16 EBM Electric camera supplied with 261.001 power grip, 261.110 Varta-Deac 10 x 1000 DKZ battery and 261.330 battery charger

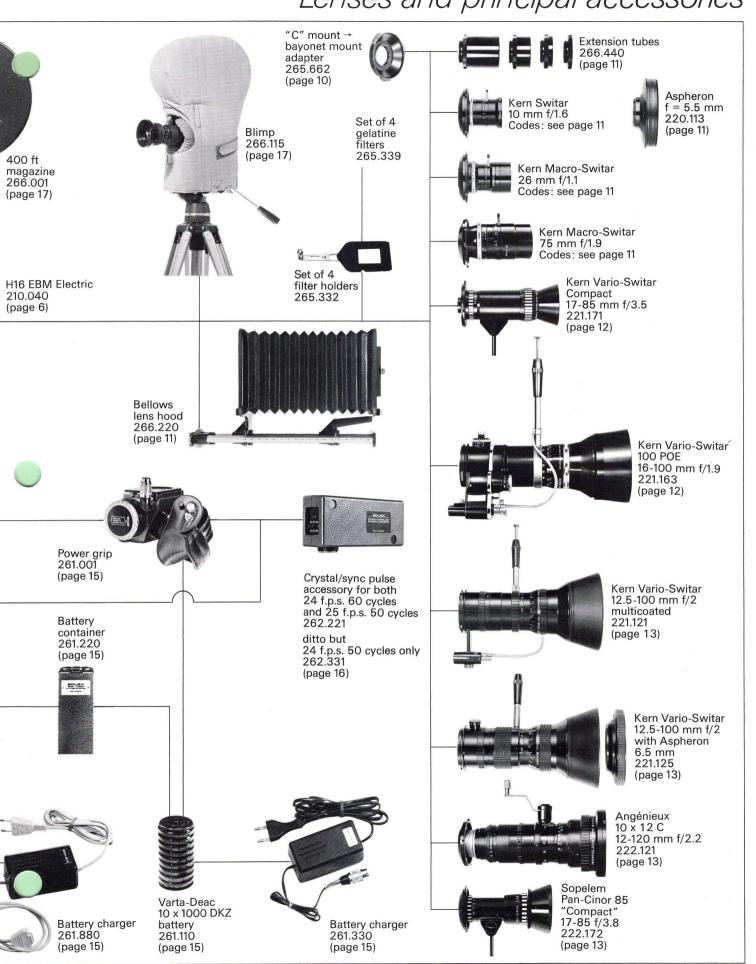
without TV frame

• with TV frame

Codes: 210.040 210.041



# Lenses and principal accessories





#### Mechanical system

Electric motor, electronically regulated by impulses, for optimum use of the power of the battery and perfectly constant filming speeds. • Filming speeds of 10, 12, 18, 20, 24, 25, 32, 40 and 50 f.p.s. + single-frame. • 24 and 25 f.p.s. filming speed accuracy in accordance with sync pulse standards.

- Possibility of sound synchronization with crystal control accessory at 24 and 25 f.p.s.; maximum deviation for 400 ft of film: less than one frame. ● Camera stops with shutter closed for all functions. ● Practically instant start and stop, with no noticeable overexposure of the first or last frame of a take.
- Unlimited reverse running. 
   Built-in device for testing the power pack charge; the current is automatically switched off as soon as the power pack voltage drops below the critical level.
   170° rotary shutter opening.
- Automatic film threading; spool ejector; loop former.

Powered by SAFT Ni-Cd battery with low internal resistance, nominal voltage 12 V-DC; choice of two power packs:

- 12 V/0.45 Ah, mounted on the camera lid; capacity: about 400 ft of film at + 20°C and 25 f.p.s.;
- 12 V/1.2 Ah, carried slung over the shoulder or in a pocket; capacity: about 2000 ft of film at + 20 °C and 25 f.p.s.

Both power packs are equipped for rapid recharging (temperature probes and safety thermostat); all SAFT VR-type NiCd elements are also provided with a safety valve as protection against excessive pressure. Two battery chargers are available:

- standard charger: recharges either power pack in about 12 hours;
- rapid charger: recharges the 12 V/0.45 Ah power pack in about 30 minutes and the 12 V/1.2 Ah power pack in about 1 hour 20 minutes.

#### **Optical system**

Reflex viewfinder with light captured through swivelling prism mounted in front of the shutter. Misadjustment-proof ground glass on prism itself. ◆ Adjustable eyepiece: ± 5 diopters. ◆ Magnification: 13 x. ◆ Rubber eyecup, directional and can be folded over. ◆ Viewfinder light trap. ◆ Field of view corresponding to standard 16 mm projection field. ◆ TV frame: 8.40 x 6.30 mm; R = 1.7 mm.

 Extremely rugged bayonet lens mount, with built-in filter holder.
 Bearing on three small tongues.
 Centering diameter:
 Distance between bearing plane of tongues

 Distance between bearing plane of tongues and lens focal plane: 23.22 mm.
 Most "C" mount lenses easily adapted.

#### Light meter

- High performance, built-in light meter.
- Through-the-lens measurement of the light by a cell which fits in front of the filming aperture while the diaphragm is being set.
- Instant reaction, linear characteristic silicon cell, for electronic processing of the data: film sensitivity, filming speed lighting of the cell; it is practically proof against dazzle, variations in temperature, and ageing. ● Sensitivity range; 10 to 630 ASA (11 to 29 DIN) with automatic coupling at all filming speeds.
- The silicon cell is "adapted" to the spectral sensitivity of the film by an optical filter.
- Measurement of the light in the centre of the field of view over about 35% of the picture area.
   Manual operation of the diaphragm setting ring, the correct opening being set by balancing the brilliance of two light-emitting diodes located in the viewfinder; possibility of detecting an over- or under-exposure of 1 stop.

#### Synchronous sound recording

Sync pulse socket for sync pulse and automatic slating, or for connecting a crystal accessory. • Slating lamp switch.

#### General

Nominal capacity: all 16 mm films on 100 ft spools. • Possibility of mounting an accessory 400 ft magazine. • Synchro-flash socket. • Built-in release switch controlling at functions: forward and reverse motion, single-frame operation. • Safety lock: prevents the accidental operation of the camera; also makes it possible to lock the release in the "release" position (for continuous operation). • Frame counter up to 1000 frames. • Counter in feet or in metres. • Remote-control socket.

H16 EL camera supplied with 261.440 12 V/0.45 Ah power pack for fixing on camera lid, 261.880 battery charger for normal charging and 265.005 remote control cable.

Code: 210.050

# Lenses and principal accessories



# Interchangeable lenses = increased flexibility of use

H16 cameras are designed to take most of the lenses available on the market, whether with Bolex bayonet mounts or "C" mounts with an adapter ring: this further increases the flexibility of Bolex H16 models and widens their field of use considerably. The possibility of changing lenses very easily and very quickly gives movie-makers much wider freedom and scope from the point of view of picture "composition".

Below, we offer a series of very high quality lenses, specially designed for Bolex H16 cameras and guaranteeing impeccable results. The general characteristics of these lenses are as follows: "C" mount

Lens seat/film plane distance: 17.52 mm. Thread: 1" (25.4 mm).

Bayonet mount

Bearing on three small tongues. Centering diameter: 60 mm. Distance between bearing plane of tongues and lens focal plane: 23.22 mm.

"C" mount → bayonet mount adapter

"C" mount lenses can be used on the bayonet lens mount by means of a suitable adapter (with the exception of the Vario-Switar 100 POE). Bayonet adapter Code: 265.662

**N.B.** Lenses with very large apertures (greater than f/1.8) as well as certain wide-angle lenses, must be specially corrected, as the lenses offered below have been, before being used on H16 cameras with reflex viewfinders.



# Kern fixed focal length lenses

Kern lenses incorporate an exclusive automatic depth-of-field scale (Visifocus – orange dots).

	Wide-angle SWITAR 10 mm f/1.6 RX	Standard MACRO-SWITAR 26 mm f/1.1 RX	Telephoto MACRO-SWITAR 75 mm f/1.9
Horizontal field angle	52° = 965 ‰	21° = 371 ‰	7° = 129 ‰
Relative magnification	0.4 x	1 x	3 x
Focusing range	8″ -∞	(7 1/2") 20" -∞	(2′6″) 5′ -∞
Diaphragm preselection device	+	+	+
Dual-range extension for macrofilming		+	<b>*</b>
For H16 Reflex models	+	+	+
For H16 non-Reflex models			+
Lens codes:			
with multicoated treatment • with "C" mount	220.103 220.101*	220.263 220.261*	220.754
• with "C" mount + bayonet adapter	220.105 220.104*	220.265 220.264*	220.755
without multicoated treatment • with "C" mount	220.109 220.107*	220.269 220.267*	220.751
with "C" mount + bayonet adapter	220.111 220.110*	220.271 220.270*	220.752

<sup>\*</sup>Scale in metres on the distance ring.

# Aspheron 5.5 mm super wide-angle optical accessory for Switar 10 mm

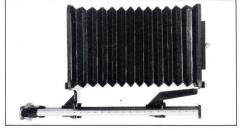
This aspherical optical accessory, specially designed for use with the Switar 10 mm f/1.6 wide-angle lens with presetting of the diaphragm makes it possible to practically triple the field of view without detracting from the quality of the picture.

- Resultant focal length: 5.5 mm
- Field of view: 95°
- Horizontal field angle: 84° (projector aperture)
- Distortion: negligible Correction of the diaphragm: nil
- Concave surface: spherical
- Convex surface: aspherical
- Anti-reflection treatment: multicoated
- Retaining ring for smooth circular filter
- Front thread: M 77 x 0.75.

Code: 220.113







#### **Extension tubes**

For use with any H16 Reflex camera fitted with a turret or bayonet mount. Extension tubes are employed to achieve extreme magnification of minute subjects such as insects, filmed at very close range. The view-finding system of H16 Reflex cameras ensures maximum accuracy in framing and focusing of the subject. These tubes are supplied with a calculator table for fixed focal length lenses from 25 to 150 mm.

Code: 266.440

#### Bellows lens hood

This accessory, which increases the professional appearance of H16 cameras, greatly simplifies the achieving of trick effects, such as entering a room through a keyhole, making the same person appear several times on the same frame, on-the-spot titling, etc. Supplied with a set of masks and acetate sheets.

Code: 266.220













#### Kern Vario-Switar Compact 17-85 mm f/3.5

Horizontal field angle (projector aperture):  $32^{\circ} = 586\%$  to  $6\frac{1}{2}^{\circ} = 114\%$ 

Built for H16 cameras, this zoom lens combines outstanding performance with light-weight, compact design.

- Maximum mount diameter: 47 mm.
- Overall length (without lens hood): 106 mm.
- Weight: 12 ozs.

Focusing range from 3'4'' to  $\infty$ .

Vario-Switar Compact

with bayonet mount

Code: 221.171

#### Kern Vario-Switar 100 POE 16-100 mm f/1.9

with TTL automatic exposure meter and power-zoom.

Horizontal field angle (projector aperture):  $34^{\circ} = 603\%$  to  $5\frac{1}{2}^{\circ} = 96\%$ .

The Vario-Switar 100 POE lens makes the H16 Reflex a camera in a class of its own. This lens, with automatic diaphragm adjustment and light measurement through the lens, is designed exclusively for H16 models with reflex viewfinder. From the distinguished Switar range, it is outstanding not only for its exceptional optical quality but also for its ingenious mechanical design. The cable release, interlocked with the zoom lever, controls diaphragm preselection. Preselection can also be controlled with the release of the 263.001 or 263.110 accessory hand grips and the 265.030 cable, or with the 261.001 power hand grip used in conjunction with a connecting cable 265.025.

Focusing range from 4 ft to ∞ (up to 2' 4" with close-up attachment).

The Vario-Switar 100 POE is equipped with a power-zoom, making it easy to achieve professionally smooth zoom effects.

Vario-Switar 100 POE	Codes 221.161 221.163
Filters ASA series IX	267.001
yellow	267.003
neutral density	267.005

conversion

Close-up attachment

for filming between 3' 8" and 2' 4" (for 221.161 and 221.163 models)

221.901

267.007

Cable for connecting hand grip 263.001 or 263.110 to the Vario-Switar 100 POE, for diaphragm preselection

265.030

**Cable** for connecting hand grip 261.001 to the Vario-Switar 100 POE 265.025 for diaphragm preselection

#### Kern Vario-Switar 12.5-100 mm f/2

multicoated lens, with presetting of the diaphragm.

Horizontal field angle (projector aperture): 41° = 752 % to 5 ½° = 96 %

With an 8 times zoom, and a short focal length making it a real wide-angle model, this is a universal lens ideally suited to reporting.

Although it has no fewer than 19 lens elements, its light efficiency is excellent, for it has been given an anti-reflection multicoating treatment.

This finish also offers the following advanta-

- improvement of the contrast in general, but above all in against-the-light shots;
- · possibility of filming directly against the light without being bothered by the stray reflections that make most sequences filmed under these conditions with a normal lens impossible to use.
- le Vario-Switar 12.5-100 mm f/2 is equipped with a diaphragm preselection device: the latter is always fully open between two shots and returns to the aperture previously chosen only at the precise moment the release is pressed. This fully open position, during viewfinding, considerably simplifies framing and focusing. The preselection can be controlled either directly or by means of the cable release interlocked with the zoom lever, or with the 263.001 or 263.110 hand grip, using the 265.030 accessory cable.

This lens is provided with the Bolex bayonet mount. It can be fitted on all Bolex H16 Reflex models with bayonet lens mounts.

Focusing range from ∞ to 4 ft (2' 4" with a close-up attachment).

o-Switar icoated	12.5-100 mm f	Codes: 221.121

Filters ASA series IX

267.001 yellow neutral density 267.003 267.005 267.007 conversion

**Close-up attachment** for filming between 3' 8" and 2' 4" 221.901

Cable for connecting hand grip 263.001 or 263.110 to Vario-Switar 12.5-100 mm f/2 multicoated lens for diaphragm preselection

265.030

#### Kern Vario-Switar 12.5-100 mm f/2 with Aspheron 6.5 mm

With an optical formula identical to that of the Vario-Switar 12.5-100 mm f/2 mentioned above, this lens is equipped with the special close-up focusing device indispensable when using the Aspheron 6.5 mm super wideangle optical accessory.

- Focal lengths: 12.5 to 100 mm
- Geometric apertures of f/2 to f/22, mark for photometric apertures (T stop); no presetting of the diaphragm
- Rubber covered focal length and focusing
- Distance adjustable between 1.2 m and ∞ (0.7 m with close-up attachment)
- Multicoated anti-reflection treatment.

The Aspheron super wide-angle optical accessory, supplied with the Vario-Switar 12.5-100 mm f/2 lens, has been specially designed for this lens. It makes it possible to practically triple the width of field obtained when set to wide-angle position (6.5 mm) without causing any extra distortion.

Horizontal field angle of the lens alone:  $41^{\circ} = 752\%$  to  $5\frac{1}{2}^{\circ} = 96\%$  with Aspheron:  $72^{\circ} = 1450\%$ This lens is available with either a "C" or a Bolex bayonet mount

#### Vario-Switar 12.5-100 mm f/2 MC with Aspheron 6.5 mm Codes:

	"C" mount Bayonet mount	221.123 221.125
Filters ASA	series IX yellow neutral grey anti-UV conversion	267.001 267.003 267.005 267.007

between 1.10 m and 0.70 m

#### Close-up attachment for filming 221.901

#### Angénieux 10 x 12 C 12-120 mm f/2.2

Angénieux 10 × 12 C

Horizontal field angle (projector aperture): 44° = 804 ‰ to 4 ½° = 80 ‰

This lens is outstanding for its very big focal length ratio (10 times), making it possible, by means of a crank handle, to change smoothly from a focal length of 12 to 120 mm. Focusing range from ∞ to 1.50 m; with close-up attachments from 1.55 and 0.65 m. Geometric and photometric apertures indicated on the diaphragm ring.

with "C" mount	
<ul><li>with "C" mount + bayonet adapter</li></ul>	222.121
Filters ASA series IX yellow neutral density UV conversion	267.001 267.003 267.005 267.007

Codes:

Close-up	attachment for filming	a
between 1.	.55 and 0.85 m	222.903

Close-up attachment for filming 222.905 between 0.87 and 0.65 m

Other Angénieux models supplied on request.

#### Sopelem Pan-Cinor 85 "Compact" 17-85 mm f/3.8

Horizontal field angle (projector aperture):  $32^{\circ} = 586\%$  to  $6\frac{1}{2}^{\circ} = 114\%$ 

This lens is equipped with three setting devi-

- ring for setting the diaphragm from f/3.8 to f/22;
- focusing ring, graduated from 1 m to infin-
- zoom lever, which can vary the focal length from 17 to 85 mm continuously without affecting the relative aperture or the focusing. The Pan-Cinor 85 "Compact" possesses a "C" mount with standard type thread (25.4 mm = 1"). It can be mounted on 16 mm cameras with a film-plane lensseat distance of 17.52 mm, as well as on H16 models with bayonet mounts by means of an adapting ring.

Pan-Cinor 85 "Compact"	Codes
<ul><li>with "C" mount</li></ul>	222.171
<ul> <li>with "C" mount + bayonet</li> </ul>	
adapter	222.172

# Electric motors

#### EM motor

(for all H16 cameras equipped with the 1:1 spindle)

The EM motor has been designed for filming without synchronous sound recording. It drives the film at speeds of 12 to 25 f.p.s. It is powered by the 261.660 12 V/1.2 Ah power pack. The speed is set on the camera; it is therefore the camera's mechanical regu-



lator that determines the filming speed; an electronic current regulator prevents any overloading of the motor or camera.

#### **Technical data**

- Powered by 12 V/1.2 Ah battery (or any other DC source possessing the same characteristics).
- Socket for connecting to the winding mechanism of the 400 ft magazine.
- Remote control socket.
- Release by push-button or 265.005 remote control cable or the 263.110 hand grip.
- Reverse motion (only with 100 ft spools).
- The shutter is not automatically closed when the mechanism stops.

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<b>EM motor</b> with complete standard equipment	Codes: 260.550
The complete standard equipment	
comprises:	
EM motor alone	260.001
12 V/1.2 Ah power pack carried	
slung over the shoulder; capacity:	
2000 ft of film	261.660
Standard charger	261.880
"Electric" pistol hand grip	263.110

# ESM self-regulating multi-speed motor

The ESM motor which fits onto all H16 cameras equipped with the 1:1 spindle is designed for filming with synchronous sound recording. This electronically regulated auxiliary motor drives the film at the perfectly stabilized speeds of 10, 18, 24, 25 and 50 f.p.s. It is used with the same crystal/sync pulse accessory as the H16 EBM Electric and EL cameras.

It is provided with an automatic clapper device which fogs a few frames at the beginning of each take.

#### **Technical data**

- Powered by 12 V Varta-Deac 10 x 1000 DKZ 1 Ah battery housed in the 261.001 power grip or in the 261.220 container with 265.010 power and remote control cable, or by the 261.660 12 V/1.2 Ah power pack.
- Nominal voltage: 12 V.
- Built-in release.
- External power socket.
- · Remote control socket.



- Crystal/sync pulse socket.
- Automatic clapper.
- T2A fuse.
- The shutter is not automatically, closed when the mechanism stops.

<b>ESM motor</b> with complete standard equipment	Codes: 260.660
The complete standard equipment	
comprises: ESM motor alone	260.111
Power grip 12 V Varta-Deac 10 x 1000 DKZ	261.001
battery Battery charger with cables	261.110 261.330

## Power and remote control cable for connection to the 261.220 battery

container 265.010

Variante	
ESM motor alone	260.111
Power-pack	261.660
Battery charger	261.880
Remote control cable	265.005
"Electric" pistol hand grip	263.110









#### Power hand grip

(for H16 EBM Electric camera and H16 camera equipped with the ESM motor)

This grip, fitted with a rapid attachment device, has a compartment for the Varta-Deac 10 x 1000 DKZ battery, as well as a start button and a button for the diaphragm preselection of the Vario-Switar 100 POE. Designed to fit the contours of the hand, the grip can be swivelled to the most convenient position, and the length of its strap adjusted, thus ensuring excellent control Code: 261.001 over the camera.

#### Varta-Deac battery

The Varta-Deac Cd-Ni battery, type 10 x 1000 DKZ, is used to power the ESM motor or the H16 EBM Electric camera. Capacity: 1 Ah. Nominal voltage: 12 V. It is housed in its own compartment in the 261.001 power grip, or in the 261.220 battery container. Code: 261.110

#### **Battery container**

Designed to hold the Varta-Deac 10 x 1000 KZ battery, this special container supplies wer directly to the ESM motor or the H16 BM Electric camera equipped with its 263.220 base by means of the 265.010 power and remote control cable. It can be attached to the belt or, for example, to the Code: 261.220 tripod.

#### Battery charger

This is used for charging the 261.110 Varta-Deac 10 x 1000 DKZ battery housed in the 261.001 power grip or in the 261.220 container. The current is electronically regulated, eliminating all risk of overcharging. Full charging takes approximately 14 hours. Adjustable for 110 or 220 V/50-60 cycles.

Code: 261.330

Charger with cables





#### 12 V/1.2 Ah power pack

For powering H16 EL and EBM Electric cameras or ESM and EM motors. The 12 V/1.2 Ah power pack carried slung over the shoulder or in a pocket provides sufficient power for about 2000 ft of film at + 20 °C. It is equipped with the temperature and thermostat probes needed for rapid recharging, which takes about 1 hour 20 minutes.

It must be connected up by means of one of the cables below.

Power cable for H16 EL camera Codes: 265.020 or EM and ESM motors

265.015

261.550

261.660

261.770

Power and remote control cable for connecting to the 263.220 base of the H16 EBM Electric camera

12 V/1.2 Ah power pack alone 12 V/1.2 Ah power pack with 265.020 power cable 12 V/1.2 Ah power pack with 265.015 power and remote control cable





#### 12 V/0.45 Ah power pack

For powering the H16 EL camera. The 12 V/0.45 Ah power pack, which fits onto the camera lid, provides sufficient power for about 400 ft of film at + 20 °C. It is equipped with the temperature and thermostat probes needed for rapid recharging, which takes about 30 minutes. The cable for connecting up to the camera is supplied with it. Code: 261,440

#### Standard battery charger

This enables the two 261.440 12 V/0.45 Ah and 261.550 12 V/1.2 Ah power packs to be fully charged in about twelve hours at + 20°C. It is electronically regulated to avoid any risk of overcharging. It is adjustable for 110 or 220 V/50-60 cycles. Code: 261.880

#### Fast charger

This enables the 261.440 12 V/0.45 Ah power pack to be charged up to about 90% of its capacity in less than 30 minutes and the 261.550 12 V/1.2 Ah power pack in about 1 hour 20 minutes, both at + 20°C. Equipped with a complex electronic regulating system which takes the voltage and internal temperature of the battery into consideration, it avoids any risk of overcharging. It automatically switches to normal charging once rapid charging is completed. It is adjustable for 110 or 220 V/50-60 cycles.

Code: 261.990

This is a light, sturdy, easily adjusted tripod, with rapid attachment device and has been specially designed for H16 cameras. Possess-

ing a height adjustment column and a built-

in swivel joint, it is a very strong and steady

piece of equipment suitable for use with all

**Tripod** 

16 mm cameras.

Cable release

2'4" with adapter

**Protective cover** 

in canvas and plastic

**Tripod** 

#### Crystal/sync pulse (PQM) accessorv

(for H16 EBM and H16 EL cameras as well as for H16 RX-5 and H16 SBM cameras equipped with the ESM motor)

This basic equipment gives the following possibilities:

- Synchronisation of the camera mechanism on the frequency of a crystal, making it possible to guarantee the precision of the filming speeds of 24 and 25 f.p.s. to within a margin of error of less than 0.002 %, from – 20 to + 50 °C (less than 1/4 of a frame out in 400 ft
- Synchronisation of the camera mechanism on an external signal working in the neighbourhood of the filming speeds of 24 and 25 f.p.s., in a zone of  $\pm$  10 %.

#### "Mechanical" pistol hand grip

For flat-based H16 cameras not equipped with an electric motor. It is particularly suitable for hand-held filming with a camera fitted with a Vario-Switar lens. It is provided with a rapid attachment device. It can be supplied with a 265.030 cable for connecting to Vario-Switar 100 POE 16-100 mm f/1.9 and Vario-Switar 12.5-100 mm f/2 multicoated lenses for the preselection of the diaphraam.

Code: 263.001











Codes:

263.330

265.035

264.990

 Transmission of a sync pulse proportional to the camera speed (60 cycles at 24 f.p.s. or 50 cycles at 25 f.p.s.; 50 cycles at 24 f.p.s. on the special model).

• Transmission of a 12 V DC clapper signal (3 different standards of automatic clapper).

Two versions are available:

- unit for setting to 24 f.p.s. 60 cycles or 25 f.p.s. 50 cycles, with 1 m connecting cable Code: 262.221 and protective cover.
- unit for 24 f.p.s. 50 cycles only, with 1 m connecting cable and protective cover. Code: 262.331

Set of accessories for sync pulse equipment

comprising: 1 cable for connecting to the tape recorder (7.5 m) without tape-recorder jack;

1 clapper lamp mount and 1 clapper lamp • for H16 EL and H16 EBM cameras

- Code: 265.065 • for H16 SBM and H16 RX-5 cameras (from No. 350,001) with ESM motor (with special Code: 265.070 connecting cable)
- for H16 RX-5 camera (up to No. 262,000) with ESM motor (with special connecting Code: 265.075

Dimensions: 135 x 57 x 35 mm. Weight: 290 g.

#### "Electric" pistol hand grip

For flat-based H16 cameras equipped with the EM or ESM electric motor powered by the 261.660 power-pack or for the EL camera. Equipped with a built-in microswitch and a rapid attachment device, it is supplied with a cable for plugging into the remote control socket of the motor or the camera.

It can be supplied with a 265.030 cable for connecting up to Vario-Switar 100 POE 16-100 mm f/1.9 and Vario-Switar 12.5-100 mm f/2 multicoated lenses for the preselection of the diaphragm. Code: 263.110

#### Power grip



Code: 261.001. See page 15.

#### Tripod with panoramic head with friction bearings on Teflon

Same model but equipped with a panoramic head specially designed for movie-making, the braking of the horizontal and vertical movements being effected on Teflon, thus ensuring an extremely smooth and regular friction comparable to hydraulic-type friction devices.

#### **Technical specifications**

- basic friction of the horizontal and vertical movements on Teflon, adjustable in the works;
- additional gradual braking, also ensuring the complete blocking of the two move-
- spirit level, for setting horizontal;
- · handle turning in all directions.

#### Tripod:

• with rapid removable "Bolex type" attachment

• with standard 14" and 36" screw attachment

Protective cover in canvas and plastic

Codes: 263.550

263.551

264.990

# 



#### Shoulder brace

Both practical and light, the Bolex shoulder brace can be used with all flat-based H16 cameras, as well as with the H16 EBM Electric camera fitted with the 263.220 base or the 261.001 power grip. It is provided with the Bolex rapid attachment device for instant mounting and removal of the camera. To simplify high and low angle shots, the attachment plate can be adjusted vertically. The Bolex harness is well padded and completely adjustable to individual physical requirements.

#### Base

This base, provided with a rapid attachment device, enables the H16 EBM Electric camera, with its power grip removed, to be fixed to a tripod and connected to the crystal/sync pulse accessory (the base reduces the height and improves camera stability). The camera is then powered by means of the 261.770 Ah power pack or the 261.110 Varta-Deac x 1000 DKZ battery housed in the col.220 battery container, using the 265.010 power and remote control cable.



Base

Code: 263.220

Power and remote control cable for connecting the 261.220 battery container to the ESM motor or H16 EBM Electric camera with 263.220 base

Code: 265.010

Power and remote control cable for connecting the 261.550 12 V/1.2 Ah power pack to the H16 EBM Electric camera with 263.220 base Code: 265.015

#### Monopod

A highly practical accessory that can be used with all H16 cameras. Very often, it dispenses with the need for a tripod, Its collapsed length is only 53 cm; fully extended it measures 160 cm. It weighs under 670 g.

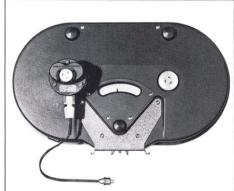
Code: 263.660

#### 400 ft magazine

(for H16 RX-5, SBM, EBM Electric, and EL cameras)

Easily mounted and removed, this magazine can take 200 ft spools or up to 400 ft of film on rolls. It is used in conjunction with the MM winding motor, which ensures constant film tension. A counter indicates the length of film remaining unexposed. Weight of the magazine equipped with the MM motor: 1500 g.

Magazine with two centering hubs	266.001
MM 12 V winding motor with two idle rollers for the camera	266.011
Cable connecting MM motor to ESM or EM motors, or H16 EBM Electric or EL cameras	266.025
2" core for 400 ft magazine (spare) Cover for 400 ft magazine	265.663 266.110





#### Blimp

This one-piece sound-proof cover considerably reduces camera noise. Composed of several layers of special material, covered with plastic and equipped with a "Velcro" fastening system, it can be fitted on all H16 cameras with zoom lens and 400 ft magazine as well as on spring wound cameras equipped with ESM or EM motors.

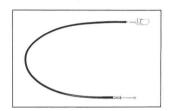
Code: 266.115

#### Cable release

For side release; fitting on to the side release knob of the camera by means of an adapter.

Cable with adapter, length 2' 4'

Code: 265.035





#### RX-Fader

This device smoothly and automatically opens and closes the variable shutter (over 40 frames) and is essential for producing really professional fades and lap dissolves. Supplied with a raised winding crank-handle. For use with spring motor only.

RX-Fader (with raised crank-handle)

Code: 266.330





#### Black grained skai case

Designed for all H16 100 ft cameras, it is particularly well suited to the H16 EL camera fitted with a zoom lens, like the Vario-Switar 12.5-100 mm f/2 multicoated.

Space for a hand grip as well as films and accessories.

Dimensions: 42 x 27.5 x 14.5 cm.

Code: 264.001



#### Single-Frame Unit

This is a device comprising a synchronous motor fitting on all flat-based H16 cameras, equipped with the 1:1 spindle, and a power and control box plugging into the mains. This device enables the camera to film a single frame at a time, over a long period, while ensuring perfectly constant exposure times.

Characteristics of the motor: maximum speed 4 f.p.s. on a 50 cycle mains, 5 f.p.s. on a 60 cycle mains; exposure time for normal or single-frame operation: 1/10th second on a 50 cycle mains, 1/12th of a second on a 60 cycle mains.

#### Characteristics of the power and control box.

Available in two versions, 100-240 V/50 cycles or 100-130 V/60 cycles, this box comprises a start switch with indicator light; an electro-magnetic frame counter; a second electro-magnetic frame counter, with preselection device; as soon as the counter reaches zero. the motor automatically stops; a knob for setting continuous operation, stop or single-frame operation; a switch for setting the number of frames, i.e. either a single frame, or series of 2, 3 or 4 frames at a time; a reversing switch (forward motion, reverse motion); a socket for the remote control cable, which can be connected to a switch operated by foot (or any other system) or to Code: 266.660 an accessory time-switch.



# Remote control with timer for Bolex H16 EL camera

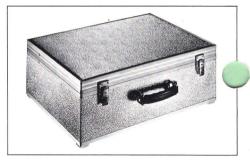
This Bolex accessory which plugs into the remote control socket on the H16 EL camera, makes possible:

- the manual remote control of the camera mechanism in normal or single frame operation:
- sequences programmed for between 1 and 9,999 frames, at any filming speed; the sequence can be repeated as often as required, by giving a single impulse;
- single frame operation or operation in bursts of 1 to 9 frames (minimum interval between two frames or series of frames: 0.5 seconds) with exposure time determined by the position of the camera filming speed selector. This makes it possible to change instantly from normal to single frame operation and vice versa, without having to stop filming, for the purpose of inserting, for example, a slow motion effect in the middle of a sequence filmed at normal speed;
- automatic single frame filming with interval adjustable from 0.5 to 99.5 seconds.

Dimensions: length 193 mm, width 136 mm, height 60 mm.

Supplied with one cable for connecting up to the camera (1.60 m) and a protective cover.

Code: 266.880



#### Aluminium case

For the H16 EBM Electric and EL cameras, as well as any H16 400 ft models ready for filming, that is to say fully equipped with the ESM or EM motor, the 400 ft magazine with its MM motor, a zoom lens and a power or hand grip. Compartment for accessories, a spare 400 ft magazine, and four rolls of film in their containers. The case is airtight. Dimensions: 60 x 49 x 22 cm. Code: 264.550

#### Aluminium box

Sturdy enough to support the weight of a man, this plush-lined box carries the H16 EBM Electric and EL cameras or any H16 100 ft ready for use i.e. camera equipped with fixed focal length or zoom lens as well as an auxiliary electric motor and power hand grip. A large compartment holds accessories, including the bellows lens hood and monopod. The case is airtight. Dimensions: 54 x 39 x 20 cm. Code: 264.660

# Underwater housing

This Bolex underwater housing has been specially designed for H16 EL and EBM Electric cameras, with built-in electric motors and equipped with the Switar 10 mm f/1.6 with or without Aspheron 5,5 mm or Macro-Switar 26 mm f/1.1 lens; it has therefore been designed to hold the battery needed for powering these cameras.

The precision of focusing and framing, which can be carried out through the camera's own

reflex viewfinder thanks to a viewfinder adapter, makes even macro shots possible.

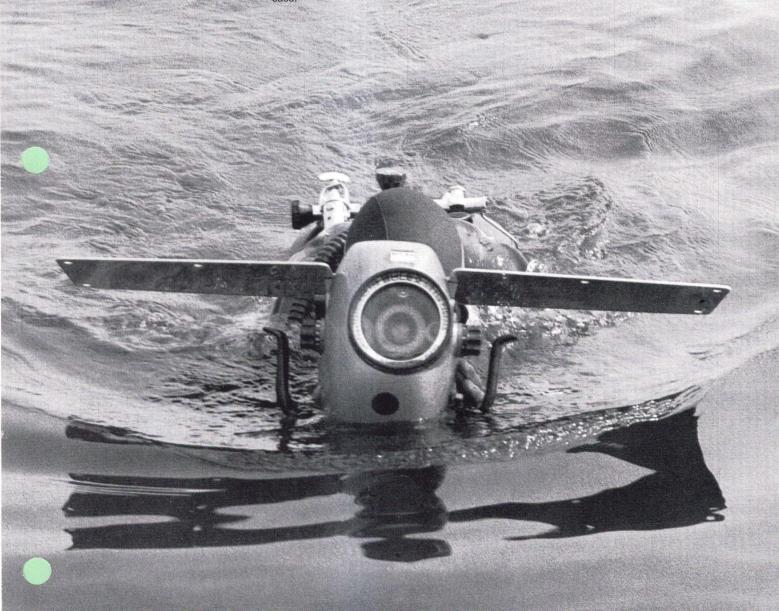
The housing, which consists of two parts, is made of light metal alloy; very sturdily built, it is capable of withstanding water pressures down to a depth of 320 ft. Locking cams (patented system) ensure rapid, reliable locking of the housing. Guaranteed by O-rings, the seal is perfect. All external and internal metal parts are permanently protected against corrosion. It is equipped with two stabilizer fins. It comes in a plastic carrying case

Model for H16 EBM Electric with container for this camera's 261.110 battery, and connecting cable

Codes: 266.775

Model for H16 EL with lever for operating the camera's light meter cell, and connecting cable

266.770



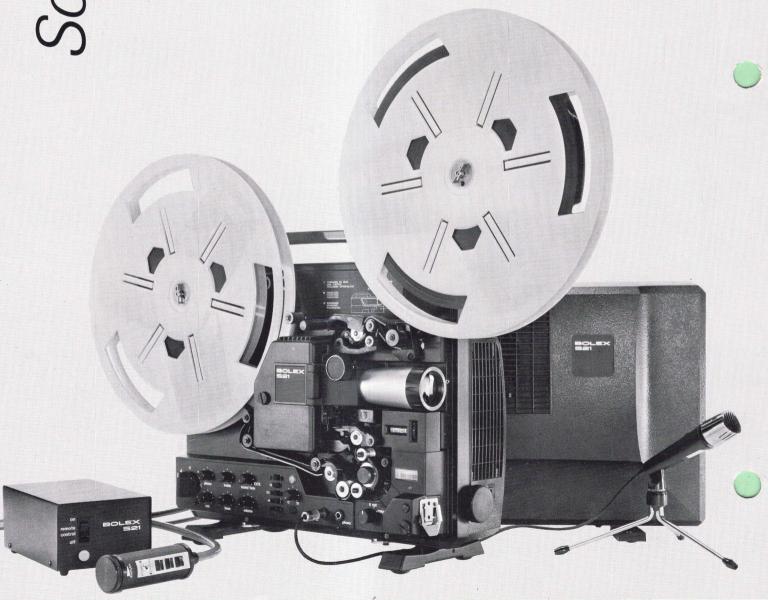
# Sound projectors

Bolex 521

The Bolex 521 projector is designed for the projection of all single or double perforated 16 mm films, either silent or with optical or magnetic sound tracks.

Equipped for recording on the magnetic track of the film, this highly versatile projector offers all the facilities of an advanced sound recording system such as for example direct mixing, superimpositions and sound fading.

Portable and very simple to operate, the Bolex 521 projector features many technical advantages (such as automatic threading, variable speed, picture "freezing" and a safety device against accidental erasure) making it a highly practical and ideachoice for those who, without being professional cameramen, are called upon to demonstrate or teach in such widely varying fields as engineering, scientific research, art and sport.



#### **Technical specifications**

#### General

- Sound projector for magnetic recording d optical and magnetic reproduction of and on 16 mm film.
- Aluminium die-cast body, with plastic lid forming a case.
- Dimensions: 480 x 380 x 240 mm, excluding handle.
- Weight: approximately 40 lb.
- Connection to mains:
- a) Universal model with 4-position voltage selector: 118-127-220-240 V, 50/60 cycles; b) European model 220 V/50 cycles.

#### Capacity and threading

- For use with all standard spools up to 2000 ft.
- · Automatic threading.

#### **Mechanical system**

- Film driven by electronically regulated low voltage electric motor.
- Projection speeds: 18 f.p.s., 24 f.p.s., from 12 to 26 f.p.s. (adjustable by potentiometer), "freezing" on a picture, single-frame projection.
- Electromagnetically controlled shutter with 2 or 3 blades.
- · Rotating main switch with 6 settings.
- 4-digit frame counter (1 unit = 10 frames).
- Ventilation fan driven by separate motor.
- Screw-type feet for adjusting height and el.
- Framing adjustment by shifting claw spindle.

#### Lamp and lenses

- 24 V/250 W halogen lamp, with built-in dichroic mirror.
- Lens-mount, diam. 42.5 mm; focusing by milled knob.
- Three lenses to choose from: 50 mm f/1.3, 70 mm f/1.6, 35-65 mm zoom f/1.6.

#### Sound system

 $\bullet$  Fully transistorised amplifier, plugging into the projector in 3 separate units. Power output 25 W with 2% harmonic distortion on 8  $\Omega$ .

Response curve at direct amplification: 30 to 20,000 cycles at  $\pm$  3 dB.

- 3W built-in loudspeaker (monitor).
- 10 W loudspeaker fitted on the lid.
- Optical or magnetic sound playback volume control by independent potentiometer.
- Bass and treble tone control by two separate potentiometers operating during direct amplification and playback.
- Operating knob with 3 settings offering the following possibilities projection of silent films with magnetic head retracted, playback of sound recorded on the optical track, magic playback and recording.
- n all three positions it is possible to give a running commentary via the microphone or record-player inputs.
- $\bullet$  Separate jack-type inputs for phono and microphone. Phono input from 50 mV to 2 V on 500 k $\Omega.$  Microphone input from 0.2 mV to 8 mV on 5 k $\Omega.$

- Recording level adjustment by 2 separate potentiometers (microphone and phono). These 2 potentiometers also control the volume during direct amplification (live commentary).
- Recording level threshold compression device.
- Double locking of recording eliminating any risk of accidental erasure.
- Checking of the recording level by VU-meter with needle, lit by a pilot lamp.
- Possibility of monitoring the recording through loudspeaker (at reduced power) or earphones.
- Potentiometer to variable erasure and gradual introduction of recording for superimpositions and sound dissolves.
- ullet DIN 2-pin output socket for 8  $\Omega$  loudspeaker.
- Combined DIN 5-pin output socket for 4 to 50  $\Omega$  earphones and connection to an external amplifier (50 k $\Omega$ ).
- Recording/magnetic playback response curve: at 24 f.p.s. from 100 to 12,000 cycles at  $\pm$  3 dB. Signal/background noise ratio:  $\geq$  50 dB.
- Optical playback response curve: at 24 f.p.s., from 50 to 7,000 cycles at ± 3 dB. Signal/background noise ratio: ≥ 60 dB.
- Wow rate: ≤ 0.3%.
- Standard sound/picture separations: optical track, 26 frames; magnetic track, 28 frames.

#### Accessories supplied with:

1 2000 ft spool with automatic attachment 1 record player jack

1 microphone with tripod 1 24 V/250 W halogen lamp

#### With Kiptaron 50 mm f/1.3 lens

European model 220 V, 50 Hz 240.500 Universal model 118/240 V, 50/60 Hz 240.510

#### With Bolex Hi-Fi 35-65 mm f/1.6 zoom lens

Codes: European model 220 V, 50 Hz 240.356 Universal model 118/240 V, 50/60 Hz 240.366

# Bolex 510

16 mm Projector for perfect projection of silent films and sound films with optical or magnetic tracks.

For projection of all kinds of 16 mm films: silent films as well as hired films with optical sound and self-made films with magnetic sound. Its many possible projection speeds, "freezing" on a picture and single frame projection make this projector particular interesting for schools, as movement and action can thus be analysed with precision and be divided into successive phases.

#### Universal model 118/240 V, 50/60 Hz

• with Kiptaron 50 mm f/1.3 lens

Code: 240.615

with Bolex Hi-Fi 35-65 mm f/1.6 zoom lens

with Bolex Hi-Fi 35-65 mm f/1.6 zoom lens Code: 240.616

# Bolex 501

16 mm Projector for perfect projection of silent films and sound films with optical track only.

For projection of hired 16 mm films with optical sound or silent films. The majority of hired films have an optical sound track, except for those films with only a few existing copies and original films.

The success of this projector is due largely to its ease of use and attractive price.

#### Universal model 118/240 V, 50/60 Hz

• with Kiptaron 50 mm f/1.3 lens

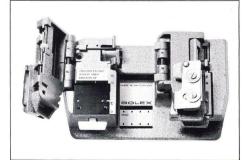
Code: 240.601

• with Bolex Hi-Fi 35-65 mm f/1.6 zoom lens Code: 240.602

#### Splicer

Designed for use with single or double perforated 16 mm films, it does bevel splicing, which ensures a very smooth passage of the film through the projection film gate, and—with sound films—avoids any disturbance of the sound. Its foolproof mechanism requires very little maintenance.

Code: 269.440



#### **Accessories for Bolex projectors**

Codes: 268.500 Isco Kiptaron 50 mm f/1.3 lens Bolex Hi-Fi 70 mm f/1.6 lens 268.700 Bolex Hi-Fi 35-65 mm f/1.6 268.356 zoom lens Remote control box with cable (only for Bolex 521) 269.001 Microphone on tripod 269.110 Wide screen attachment 2 x 268.879 Mount for wide screen attachment 268.885 2000 ft spool with automatic 269.220 attachment (spare) 2000 ft spool, of metal, in metal 269.330 box 24 V/250 W halogen lamp with 269.550 dichroic mirror (spare)

#### Quality and after-sales service

Bolex products are manufactured with the the strict throughout the world. You can entrust the service throughout the service throughout the service throughout the world. You can entrust the service throughout the world. your equipment to a Bolex distributor with complete confidence. He employs qualified technicians, usually trained in Switzerland.

#### Bolex (U.S.A.) Inc.

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