FRITZ GABRIEL BAUER PRESENTS

THE USERS GUIDE TO THE SUPER - LIGHTWEIGHT MODULAR



THE ADVANCED MOS MODULAR 35mm MOTION PICTURE CAMERA FOR MULTIPLE APPLICATIONS AND INCREASED UTILIZATION



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# TABLE OF CONTENTS

	PREFACE MOVIECAM FEEDBACK MAIL SL CHECKLIST CARE AND CLEANING	5 6 6 7
1	BODY OF THE CAMERA SYSTEM Camera front Camera left side Control board Display Camera rear Camera right side Camera top Viewfinder mount plate Camera base	14 16 17 21 23 24 25 26
2	OPTICAL VIEWFINDERS AND VIEWFINDER ADAPTER PLATE SL viewfinder Mounting the SL viewfinder Eyecup Eyepiece retaining mount Eyepiece heater Adjustment of the pivoting eyepiece Diopter corrections SL B&W video camera B&W video assist monitor	30 32 33 34 35 36 37 39
3	SL VIDEO VIEWFINDERS, SL VIEWFINDER ADAPTER PLATE, READOUTS AND MOVIELITE Viewfinder adapter plate	s 42
4	SL MAGAZINES SL magazines Digital footage counter SL magazine interior Roller assembly Loading the SL magazines	48 49 51 52 53
	2	

5	SL MAGAZINE ADAPTER AND OTHER MAGAZINES SL magazine adapter	60
6	CARRYING HANDLE, LIGHTWEIGHT SL BASE AND HANDGRIPS SL carrying handle Right handgrip Left handgrip SL lightweight base plate	64 65 66 67
7	INTERIOR OF THE SL Interior of the camera Pitch adjustment control Ground glasses Changing the ground glasses Upper aperture plate/gate Lower aperture plate Pressure plate Mirror shutter Setting the shutter angle	70 71 72 73 75 78 80 81 82
8	POWER SUPPLIES Power supply unit Battery block Voltage stabilizer	86 88 90
9	THREADING FILM IN THE SL Door lock Magazine/magazine adapter mounting rail Threading film in the SL Threading film using the SL magazine adapter Dust check knob	94 95 96 98 107
10	ACCESSORY BOXES, REMOTE CONTROL AND IRIS CONTROL Accessory connector Accessory box interface Remote control	110 111 112
	3	

TABLE OF CONTENTS

_	
SUPPORT, FOLLOW FOCUS AND MAT	ite box
Base plate	116
■ 35/\$35 base plate	117
Lens support	118
Studio follow focus	120
Lightweight follow focus	123
Matte box	125
MISCELLANEOUS AND APPENDIX	
Assistant work light	130
Tools	131
Directors finder	132
APPENDIX	
CONNECTORS AND CABLES	136

# TABLE OF CONTENTS

#### PREFACE

The MOVIECAM family has grown - we herewith proudly present our latest "offspring", the MOVIECAM SL. This very small camera has a weight of 12,55 lbs / 5,7 kg only incl. magazine for shoulder operation. Contrary to other "noisy" cameras, the SL makes, when shooting at 24 or 25 fps, just a pleasant, quiet buzzing sound (25 db). Together with the new body, two new SL MAGAZINES, an SL OPTICAL VIEWFINDER, an SL B&W VIDEO CAMERA and an SL CARRYING HANDLE system have been developed so far. In addition, two new SL ADAPTERS and an SL INTERFACE have been designed which allow to use several parts from other MOVIECAM cameras with the SL. For instance. all viewfinder systems of the MOVIECAM COMPACT, incl. several EYEPIECES, READOUTS, VIDEO CAMERAS, VIDEO ASSIST MONITORS and MOVIELITES as well as the MAGAZINES and ACCESSORY BOXES can be mounted on the SL. Please take the time to read the following pages carefully. You will see that this new camera offers you a great variety of possibilities and is at the same time easy to handle. For descriptions of all compatible parts of the MOVIECAM family, please consult the updated edition '95 of the COMPACT USERS GUIDE. For further general or technical information, please feel free to contact one of our MOVIECAM rental houses or directly the MOVIECAM Headquarters in Vienna, Austria (for addresses and phone numbers, see appendix). We built this camera for you - now you may enjoy the MOVIECAM SL!

Gabriel Bauer and Team, Vienna 1995

#### MOVIECAM FEEDBACK MAIL

Like the MOVIECAM SL system itself, its users guide consists of several interchangeable parts that will continuously be updated. Just send an E-mail by pushing HERE directly to the Vienna Headquarters and future updates will be mailed to you free of charge. You may also use this mail to let us know any comments (e.g. proposals, or – if really necessary – complaints) you may have . . . . .

#### MOVIECAM SL CHECKLIST

The attached checklist (see appendix), which is ready to be photocopied, gives a general overview of all modular parts of the MOVEICAM SL plus the compatible parts of the COMPACT system and might be of help when placing your order.

Warning! Socket and/or pinning might have been changed by some rental houses. Be aware of that when putting your equipment together.

## CARE AND CLEANING

Like the other MOVIECAM cameras, the MOVIECAM SL is almost maintenance-free. There is only one requirement for a smooth operation: **the camera has to be meticulously clean**. Therefore you should protect it against any dirt or smudges. Clean the camera exterior with window cleaner (caution - do not moisten connectors!). Cleaning the magazine exterior is identical whether it is of aluminum or carbon fiber.

Only when really necessary, e.g. to remove camera tape gum, should you use alcohol or benzine.

#### Caution: Never use acetone!

When applied properly, compressed air is the best cleaner; a vacuum cleaner or an air syringe will do fine.

Cotton tips, orangewood sticks, soft and hard brushes may be used for gentle cleaning.

Caution: The camera may be lubricated at a MOVIECAM service center only!



# THE SL SYSTEM

1 400 FT/120 M STEADICAM SL MAGAZINE 2 FOOTAGE COUNTER WITH INPUT UNIT 3 SI VIDEO VIEWEINIDER 4 POWER RECEPTACLE 5 SYNC OUT CONNECTOR 6 COVER PLATE OF MAIN FUSE HOLDER 7 ACCESSORY BOX INTERFACE PIUG 8 RIGHT HANDGRIP ATTACHMENT 9 ACCESSORY BRACKET 10 400 FT/120 M SL MAGAZINE 11 MAGAZINE/M. ADAPTER RELEASE BUTTON 12 COVER PLATE OF VIEWEINDER EXIT 13 SL VIEWFINDER 14 RIGHT HANDGRIP MOUNTING RAII 15 RIGHT HANDGRIP 16 24V OUTLET 17 SL BASE PLATE 18 LEFT HANDGRIP 19 MULTI-FUNCTIONAL BUTTON 20 FPS INPUT UNIT/DISPLAY 21 ON/OFF BUTTON 22 DOOR LOCK 23 SL MAGAZINE LOCK 24 MATTE BOX 2.5 FILTER HOLDERS 26 ORIENTABLE VIEWFINDER ON ADAPTER PLATE 27 B&W VIDEO ASSIST 28 READOUT 29 MOVIELITE 30 B&W VIDEO CAMERA 31 LONG EYEPIECE 32 1000 FT/300 M MAGAZINE 33 LONG RODS 34 LENS SUPPORT BRACKET 35 FOLLOW FOCUS 36 BASE PLATE 37 SI MAGAZINE ADAPTER 9

```
1
   400 FT/120 M STEADICAM SL MAGAZINE
 2
   FOOTAGE COUNTER WITH INPUT UNIT
 3
   SI VIDEO VIEWEINDER
   POWER RECEPTACLE
 4
 5
   SYNC OUT CONNECTOR
   COVER PLATE OF MAIN FUSE HOLDER
 6
 7
   ACCESSORY BOX INTERFACE PIUG
 8
   RIGHT HANDGRIP ATTACHMENT
 9
   ACCESSORY BRACKET
10
   400 FT/120 M SL MAGAZINE
1.1 MAGAZINE/M. ADAPTER RELEASE BUTTON
12
   COVER PLATE OF VIEWEINDER EXIT
13
   SI. VIEWFINDER
14 RIGHT HANDGRIP MOUNTING RAII
1.5 RIGHT HANDGRIP
16
   24V OUTLET
17 SL BASE PLATE
18
  left handgrip
19 MULTI-FUNCTIONAL BUTTON
20 FPS INPUT UNIT/DISPLAY
21 ON/OFF BUTTON
22 DOOR LOCK
23 SL MAGAZINE LOCK
24 MATTE BOX
2.5 FILTER HOLDERS
26
  ORIENTABLE VIEWFINDER ON ADAPTER PLATE
27 B&W VIDEO ASSIST
28 READOUT
29
   MOVIELITE
30 B&W VIDEO CAMERA
31 LONG EYEPIECE
32 1000 FT/300 M MAGAZINE
33
   LONG RODS
34 IENS SUPPORT BRACKET
35 FOLLOW FOCUS
36 BASE PLATE
37
   SI MAGAZINE ADAPTER
                  10
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THE SL SYSTEM



# THE SL SYSTEM

Notes:		)
		J
	12	



Fig. 2 – CAMERA FRONT

Contrary to the other MOVIECAM CAMERAS, the MOVIECAM SL is provided only with an ARRI PL lens mount [5]. Depending on the mounting, you can shoot either STANDARD 35 or SUPER 35 format. This choice has to be stated at the rental house where the necessary changes are made. To remove the MOUNT CAP [6] or the lens itself, turn the two bayonet levers [4] counterclockwise. To mount a lens, turn the levers gently clockwise until the lens is seated properly. Do not use force! Left of the lens mount there are two connectors. The top one [2] has a 24 V outlet, is protected by a 1,6 A multifuse and may be used for any remote-controlled device, e.g. zoom drive. In case of an external short circuit, e.g. defective zoom drive, the automatic multifuse cuts off the power

supply of the connector. To reactivate the multifuse, remove the part that caused the short circuit; disconnect the camera for approx. 30 seconds, i.e. power supply has to be totally cut.

**Remark:** Depending on the customer's requests, the camera may be delivered with different types of connectors. Make sure that all the accessories, cables and plugs you order fit together.  $\rightarrow$ 



The lower connector [1] may be used for the remote control of the on/off button (e.g. RIGHT HANDGRIP button). The dovetail type accessory bracket [3] is used to hold the CARRYING HANDLE or the LIGHTWEIGHT FOLLOW FOCUS device.







# CAMERA IS OFF:

#### 1.Take-up function:

By shortly pressing this button, the film is tightened by the two magazine winders.

#### 2.Dust-check function:

By pressing this button **approx**. **2 seconds**, the mirror shutter is cleared out of the way and thus permits to check the film gate without having to open the camera door.

# CAMERA IS ON:

#### 3.TV-bar function:

By pressing this button during shooting, the image separation bar on the TV or computer screen may be shifted toward the bottom of the viewfinder image. As long as the bar remains in this position, it is not visible on film.

The camera is switched on by activating either the button **[7]**, the RIGHT HANDGRIP button or the button on the REMOTE CONTROL.

Equally, any of those buttons can be employed to switch off the camera, and vice versa.

18

## Fig. 3c - DISPLAY

Following information is provided by the display on the control board of the MOVIECAM SL, on the READOUT or on the REMOTE CONTROL BOX

Stand-by camera.

been selected

- MOVIECAM SL without ACCESSORY BOX:







24

Lighting when camera runs with 24 fps.

Lighting when camera runs with 12 fps.

Flashing when lower speed has



Lighting when camera runs with 32 fps. Flashing when a higher speed has been selected.



Flashing when multi-functional knob is pressed and mirror shutter is in shooting position.



Shows malfunction of the driving system (motor, electronics).

CHAPTER 1 THE BODY OF THE SL SYSTEM

#### - MOVIECAM SL with ACCESSORY BOX:



Flashing when speed either too high or low has been selected on SUPER SPEED CONTROL BOX.



Lighting when camera runs with 2 fps. Flashing when lower speed has been selected.



Lighting when camera runs with 40 fps. Flashing when higher speed has been selected.



Reverse shooting with 12 fps. Flashing when lower reverse speed has been selected.



Reverse shooting with 24 fps.



Reverse shooting with 32 fps. Flashing when higher reverse speed has been selected.



Shown when mirror shutter, controlled via single frame connector, remains in shooting position (approx. 4 seconds).



Shown when reverse mode is chosen (SUPER SPEED CONTROL BOX) and an SL MAGAZINE is mounted.







CHAPTER 1 THE BODY OF THE SL SYSTEM



[18] there is the interface plug for the accessory boxes. The main fuse of the camera (Glass fuse: 6,3 A slow, 5 x 20 mm) is located below the cover plate [17].

23





The viewfinder systems are attached to the gauged borehole and threaded sockets **[30]** and flanged to the plate **[29]** on top of the glass surface.

Caution: Do n ot touch the adjusting and retaining screws [0] - they are reserved for the technicians of the rental house only!









# CHAPTER 2 SL OPTICAL- AND VIDEO VIEWFINDER









The eyepiece has an interchangeable RUBBER EYECUP **[A]**. To clean the exit pupil **[B]**, remove the EYECUP by simply pulling it straight out.

Eye-friendly covers, such as chamois or cotton cloth, can be easily attached with a rubber band. Another useful cover are the terry cloth "wrist bands", wellknown from tennis, as they are sweat-absorbing, reusable and easy to attach.



Below the RUBBER EYECUP there is a magnetically held ATTACHMENT RING for a diopter correction lens or some special filter.

Lens or filter must have a diameter of 31,5 mm.










#### CHAPTER 2 THE SL OPTICAL- AND THE VIDEO VIEWFINDER



CHAPTER 2 THE SL OPTICAL- AND THE VIDEO VIEWFINDER



Adjust contrast and brightness with the two small knobs [38+39] on the front. Standard defaults should only be changed if necessary.

## Caution: Adjust video iris only after lens aperture of the MOVIECAM SL has been set!

In case the monitor is not needed, it can be turned off with a small switch **[40]**.

39

CHAPTER 2 THE SL OPTICAL- AND THE VIDEO VIEWFINDER





For detailed information about all these parts, please consult the COMPACT USERS GUIDE.

Caution:

Before mounting the adapter plate, make sure that all glass surfaces are meticulously clean. Care should be taken that the adapter sits plane on the camera body.











The digital footage counter displays the remaining footage; it is powered by its own on-board battery. When a magazine is attached to a powered camera, the magazine battery recharges automatically. In case nothing is displayed (which very rarely happens), simply mount the magazine to a powered camera in order to load the on-board battery and to reactivate the display. The magazine battery usually recharges automatically during the shooting period.

After loading the magazine, use the "preset buttons" to input the length of film loaded.

By pressing the "set button", the footage counter stores the input. It counts backward when the camera is running.

The "raw stock" display shows the length of remaining unexposed film.

49



The small lock lever **[A]** is, when locked, secured by a spring steel safety tab **[B]**.

Open the magazines by pressing the safety tab down and turning the lever counter-clockwise. When closing, the safety tab automatically prevents an unintended opening.

#### Caution: Do not twist the safety tab!





The construction of these magazines was based on two important aspects: size and weight.

Regarding the size, these magazines were built as active displacement - type magazines. This means the take-up core continuously shifts from its start position towards the feed core, while the feed core itself shifts backward.

Regarding the weight, these brand-new magazines were made out of a carbon compound.

Compared with aluminium magazines, this means less weight but still the same stiffness and acoustic properties.

Even though the magazines have torque motors, heaters and digital footage counters, they are still very lightweight and thus ideal for shoulder or STEADICAM operation.

The core holders are mounted mobile to allow an active displacement. Be sure that no dust enters the two openings **[A]** at the bottom of the magazine. The core holders are identical with those of the other magazines described in the MOVIECAM COMPACT or SUPERAMERICA USERS GUIDES.





assemblies are mounted. The STEADICAM magazine mount is designed in such a way that, throughout shooting the 400 ft / 120 m film, the center of gravity is maintained.

Important: As soon as film is wound onto the takeup core, the core will automatically be moved toward the feed core. For this reason it is essential that the small roll [R] is rotating easily.









- SL MAGAZINES
- 7) Pull approx. 50 cm film toward you. Unlock the left core holder by depressing the release knob [H]. Place film roll onto core holder - do **not** press toward magazine bottom (caution - film might be scratched!). Because of the displacement mechanism, great care must be taken that the film rolls on both sides are absolutely flatly wound.
- Insert film from outside into magazine between magazine nose [C] in roller assembly and right roller [D].
- 9) Feed film into core slot so that no acute angle forms when turning the core clockwise (See page 56 Fig. 23d). Wind just enough film around take-up core to make sure it will not accidentally slide out again. Wound-up film has to be flush with the core and lie flat on the small take-up plate [F]. Make sure that the film is not wound up below the recess of the small roller [R]. The film windings on the feed side must not protrude **below** plate film might touch the magazine bottom. →

55









In order to mount the magazines from the COMPACT system, MOVIECAM offers an SL MAGAZINE ADAPTER that simulates the COMPACT camera opening. To mount this ADAPTER to the SL body, you have to slit it onto the rail, like an SL MAGAZINE itself. Slide the SL MAGAZINE ADAPTER onto the rails carefully until you hear a "click" and the adapter sits tight.

The other side of the ADAPTER is similar to the magazine receptacle of the COMPACT TOP MOUNT ADAPTER.

The left side of the SL MAGAZINE ADAPTER can be opened, which makes threading the film easier. For information about the mentioned TOP MOUNT ADAPTER and the other compatible MOVIECAM MAGAZINES, please consult the COMPACT USERS GUIDE.

60



## CHAPTER 6 THE SL CARRYING HANDLE AND HANDGRIPS







## CHAPTER 6 THE SL CARRYING HANDLE AND HANDGRIPS



screwdriver, the other by turning the knurled knob [B].

Make sure to mount the carrying handle firmly and properly.

With the two knurled knobs **[C]**, you may change the position of the carrying handle.

The actual SL CARRYING HANDLE is only designed to carry the camera equipped with the SL OPTICAL VIEWFINDER. Other CARRYING HANDLES will soon be designed for the SL equipped with other Viewfinders.

64

#### CHAPTER 6 THE SL CARRYING HANDLE AND HANDGRIPS



For handheld operation, MOVIECAM offers an ergonomically designed RIGHT HANDGRIP with built-in on/off button **[A]**. This button works like an "alternating switch": you can switch on the camera with the handgrip button and switch it off with the other one **[7]** on the camera left side and vice versa. The RIGHT HANDGRIP is fixed to the MOVIECAM SL by means of a small MOUNTING RAIL **[B]**. The mounting rail is slid onto the handgrip attachment **[22]** of the camera and has a rosette with screw whose mobile latch permits easier handling. Due to the rosette joint **[C]**, the RIGHT HANDGRIP may be attached firmly at any vertical angle.

A further accessory is the RIGHT HANDGRIP EXTENSION **[D]** that permits to adjust the handgrip position ergonomically. This extension facilitates the simultaneous use of the RIGHT HANDGRIP and STUDIO FOLLOW FOCUS.

Do not forget to tighten the screws **[E]** and to connect the handgrip plug to the on/off button outlet (Fig.2) **[1]**.

65

CHAPTER 6 THE SL CARRYING HANDLE AND HANDGRIPS



MOVIECAM provides an additional handgrip for the camera left side that can be turned in any direction. Slide the handgrip onto the support rods and tighten at both sides. To change the handgrip position, lift both latches **[A]** and loosen the screws **[B]**.

In the desired position, tighten the screws in both rosette joints **[C]** and put the latches down again.

Caution: The LEFT HANDGRIP is only an additional support - do n o t use as carrying handle (one-sided strain!).

CHAPTER 6 THE SL CARRYING HANDLE AND HANDGRIPS

66



CHAPTER 6 THE SL CARRYING HANDLE AND HANDGRIPS









In order to adjust the movement to the properties and dimensions of the film material in use and at the same time achieve an even more quiet and gentle film transport, a pitch adjustment control has been built into the movement block of the SL.

The pitch adjustment screw **[Y]** has no marks and no buffer stop; the adjusting range is a whole turn of the screw.

While the camera runs with normal frame speed (24 - 25 fps) and the material to be used, with an M5 Allen screwdriver, by slowly turning clockwise or counterclockwise, the position is looked for in which the camera runs most smoothly and quiet. This position is just a small segment of a screw turn.

#### Remark:

The interior of the SL looks similar to that of the other MOVIECAM cameras, but the rear film guides and the rear buckle switches are mounted differently. Both rear film guides can be opened by pressing the release knobs **[N1, N2]** or closed by pushing the guides towards the sprocket wheels. Notice that the upper wheel has, contrary to the one of the MOVIECAM COMPACT, two rows of sprockets.

The movement block and other parts, like the LOWER APERTURE PLATE, the GROUND GLASSES, the mirror shutter etc. are identical with those of the MOVIECAM COMPACT.

The description of those parts can be found in the COMPACT USERS GUIDE.

The UPPER APERTURE PLATE (gate) as well as the PRESSURE PLATE of the SL have newly designed grips

71

- they are not compatible with other MOVIECAM cameras.



The SL is equipped with the same GROUND GLASSES as the other MOVIECAM cameras. GROUND GLASSES with the following markings are available:

#### STANDARD 35 formats:

1:1.375 (Academy) 1:1.375 + TV 1 : 1.375 (camera + projector) : 1.375 + 1 : 1.66 1 : 1.375 + 1 : 1.75 1 : 1.375 + 1 : 1.85 1 1 : 1.66 : 1.66 (camera + projector) 1 : 1.66 + TV : 1.66 + 1 : 1.85 1 1 : 1.78 (HDTV) 1:1.85 1:1.85 (camera + projector) 1:1.85 + TV 1:2.35 (scope)

#### SUPER 35 formats:

Superscope 35 Superscope 35 (camera + projector) Superscope 35 + TV Super 1 : 1.85 Super 1 : 1.85 + TV

> CHAPTER 7 THE INTERIOR OF THE SL

72


The ground glass of the MOVIECAM SL lies flat on top of the mirror shutter and has a metal holder with a thread in the right front corner. Use the MOVIECAM COMBITOOL **[T4]** to exchange the ground glass as follows:

- 1. Disconnect the camera
- 2. Remove lens or cavity cap.
- Open the camera door. Turn the inching button [K] to clear the mirror shutter out of the way.
- Screw the MOVIECAM COMBITOOL into the GROUND GLASS metal holder. →

7	3

### CHAPTER 7 THE INTERIOR OF THE SL



### CHAPTER 7 THE INTERIOR OF THE SL



Film Gate with Gate Matte is integrated in the UPPER APERTURE PLATE.

Four UPPER APERTURE PLATES are available:

1 : 1.33 Full aperture 1 : 1.375 Academy 1 : 1.66 1 : 1.85

These aperture plates are made of extremely hard material; the film touches the plate only in the perforation area. To avoid deposits, e.g. hair or film dust, the fine Gate Matte **[a]** in the aperture plate is slightly recessed. The openings **[b]** for the registration pins are located left and right of the gate. A guide rail **[c]** is attached to the aperture plate right side. Clean the aperture plate carefully and regularly - best with a vacuum cleaner. Only when it is badly smudged – which will rarely be the case when handled properly and carefully – should you clean it with a small brush or an orangewood stick.

Caution: Never ever lubricate the aperture plate!





The image plane is located between the UPPER APERTURE PLATE and the PRESSURE PLATE. Both aperture plates (upper and lower) are attached to notched brackets. For mounting, the UPPER APERTURE PLATE has V-shaped notches at its top **[d]** and bottom **[e]** edges. These notches must be absolutely clean to make sure the aperture plate can be seated properly. The V-shaped bottom edge of the UPPER APERTURE PLATE, seated on the rail **[X]**, is held by a spring loaded lever. When removing the UPPER APERTURE PLATE,

- push back the movement by turning lever [J] clockwise,
- 2. lift the small lever **[F]** and pull out UPPER APERTURE PLATE by its handle **[E]**.

Caution: Be careful not to damage aperture plate or gate - this might have serious consequences!





### CHAPTER 7 THE INTERIOR OF THE SL



### CHAPTER 7 THE INTERIOR OF THE SL

To insert the LOWER APERTURE PLATE, follow the steps described below:

- 1. Insert the LOWER APERTURE PLATE in the camera below the movement block;
- 2. pull LOWER APERTURE PLATE up and swing slightly toward camera front until it touches the rail **[X]**.
- 3. Simultaneously, pull down the small lever **[B]** and press the lower part of the aperture plate in.
- 4. Lock the LOWER APERTURE PLATE in the camera by releasing the spring loaded lever **[B]**.





In the front center of the front film guide **[G]**, there is an opening for the PRESSURE PLATE **[H]**. This plate has two raised surfaces **[a]** that hold the film in the gate plane with a spring loaded pin. Smudged surfaces inevitably cause film scratches! To clean the pressure plate, remove it as described below:

- 1. Swing the pressure block [1] backward.
- 2. Lift and remove the pressure plate.
- Check PRESSURE PLATE and both surfaces thoroughly and - if necessary - clean them with lintfree cloth or orangewood sticks. Clean also the cavity at the rear of the pressure plate.

The spring is pressed into this cavity. The spring loaded steel pin **[B]** in the pressure block presses the plate onto the film with a certain force. When tapped lightly, the pin should move easily and spring back to its former position.



### CHAPTER 7 THE INTERIOR OF THE SL



Remove lens or cavity cap and open the camera door.





### CHAPTER 7 THE INTERIOR OF THE SL



### CHAPTER 7 THE INTERIOR OF THE SL





The integrated, thermostatically controlled heating elements need approx. 15 W, even when the camera is not running.

A stabilized 24 V (direct current) outlet, a 110 V / 220 V (alternating current) outlet and a lead battery charger are integrated in the POWER UNIT body.

#### Caution:

### Prior to connecting the power unit with the mains, check the given voltage and, if necessary, adjust the selector at the power unit rear accordingly!

When the camera is connected, you can simultaneously charge a BATTERY BLOCK. You have to switch on the main button **[a]** of the POWER UNIT not only to operate the camera (switch lights red), but also when the power unit serves as battery charger. Charging needs approx. 4-6 hours and is indicated by a green diode **[d]** lighting up. It fades out when the battery is fully charged. Start charging by pressing the small button "charge" **[c]**. Use the plug socket **[e]**, secured by a 2 A automatic fuse to charge a second battery block via its in-built

fuse, to charge a second battery block via its in-built charger or to supply e.g. an "Obie light" (max. 300 W / 220 V) or a video recorder.

At the power supply unit rear, there are the voltage selector and the glass fuse 2 A slow (5 × 20 mm).

87



The 7Ah 24V MOVIECAM BATTERY BLOCK is an assembly of lead cells.

To charge, either connect the BATTERY BLOCK to the POWER SUPPLY UNIT charger or use the built-in charger.

The built-in charger [c] operates with 220 V.

## Caution: Prior to operating the built-in charger with a different voltage, contact the rental house!

The green LED **[b]** lights up during charging period. After the BATTERY BLOCK has been fully charged, in approximately 6 hours, the on-board charger switches off and the LED extinguishes.

To operate the MOVIECAM SL, plug the red CAMERA CABLE into the 24 V outlet **[a]**.

88



MOVIECAM provides two special coiled cables. The blue cable connects the mains with the POWER SUPPLY unit. The red cable connects the POWER SUPPLY unit or a BATTERY BLOCK with the SL. Both coiled cables may be stretched up to approx.

### 2,5 m. Do not overstretch!

As the voltage may drop up to 1 V per cable length (depending on the power consumption of the camera), do not use a longer cable.

The camera cable can be easily plugged into the sloped connector **[16]**.

The leverage caused by connector length and cable weight resp. strain might damage the socket attachment. Therefore it is recommended to protect it against tension, e.g. by attaching the cable at the fluid or geared head.

If the camera is properly connected to a power supply (loaded battery or main adapter), the display will light up and the camera is ready to run. In case it does not light up, you have to check with a meter if 24 V are supplied. If this is the case, remove the small cover [17] and exchange the glass fuse 5 x 20 mm (6,3 A / slow). If the display does not light up or the camera does not run after the exchange, the camera has to be checked at the rental house.

89





Notes:







Contrary to the magazine receptacle of the SUPERAMERICA and the COMPACT, where the magazines are suspended on a rail and swing towards the camera body, the magazine receptacle of the SL is designed with an upper and a lower rail [13] where the SL magazines are slid on.

On top of the mounting rail is a lock to secure the magazine or the adapter. By pressing the small knob **[25a]**, this lock **[25b]** (Fig. 42) is released and the magazine or magazine adapter can be removed. The rear buckle switch **[Q]** is located on a plate in the middle of the magazine receptacle.

This plate serves at the same time as counterpart of the door lock.

95







Fig. 45b – THREADING FILM IN THE SL Attach magazine mounting claw to the adapter mounting rail. Insert film loop through the adapter in the camera. For easier threading, the adapter door [D] can be opened. Grab the film loop and swing magazine forward toward the adapter until it engages in the latch.	-

















### Fig. 52 – DUST CHECK

When manually switching off the camera, the electronic system of the MOVIECAM SL automatically sets the mirror shutter to "viewing position". To inspect the gate without opening the camera, set the mirror shutter to shooting position by pressing the multifunctional button [9] for 2 seconds. Inspect the gate by either shining a flashlight through the lens or removing the lens. By pressing the multi-functional button, the letters "dc" are displayed on the control board. The camera can then be switched on only after pressing the multi-functional button once again, which sets the mirror shutter to "viewing position".

#### Caution:

Before cleaning the film gate (with great care!), disconnect the camera to prevent possible accidents or damage. When the camera is connected again, the electronic system is automatically reset ("stand by" mode); the mirror shutter, however, remains in the shooting position and can be moved by pressing the multi-functional button.






# CHAPTER 10 THE ACCESSORY BOXES



#### CHAPTER 10 THE ACCESSORY BOXES



At the other end of the interface cable, there is an attachment plate to mount the boxes.

Features and handling of the boxes, including the IRIS CONTROL device, the SPEEDBOX REMOTE CONTROL WHEEL and the MAIN SYNC ADAPTER, are described in the COMPACT USERS GUIDE.

#### Please do not forget:

Using the SPEEDBOX, you may shoot forward from 2 to 40 fps (not 50 fps, as with the COMPACT ). If you want to shoot reverse (12 to 32 fps), you have to use a COMPACT MAGAZINE.



#### CHAPTER 10 THE ACCESSORY BOXES



To connect the SL REMOTE CONTROL CABLE with the MOVIECAM SL camera, remove first the interface plug cover (Fig. 5 **[18]**) on the right side of the camera; then plug in the connector. When using viewfinders from the COMPACT system, you may also use the COMPACT REMOTE CONTROL CABLE.

The REMOTE CONTROL BOX works as both on/off switch **[g]** and "remote" READOUT. You can read exposed footage **[b]**, frame speed **[c]**, battery condition **[d]**, sync speed **[e]** and warning signs up to a distance of 10 m. As long as the REMOTE CONTROL BOX is connected to the ready-to-shoot camera, the display **[c]** is on. By pressing the check button **[a]**, the preset frame speed or a warning sign appears on the "FPS"-display. It can be reset to "0" by pushing the reset button **[f]**. The "FPS" will be shown when you switch on the camera.

112

### CHAPTER 10 THE ACCESSORY BOXES



Notes:





#### Remarks:

Apart from the SL LIGHTWEIGHT BASE PLATE, further support systems of the MOVIECAM COMPACT can be used together with the SL.

There is one important difference, however, between COMPACT and SL: the camera base of the SL is provided with bore holes in ARRI axis standard only. SUPPORT RODS and, subsequently, LENS SUPPORT, MATTEBOX, STUDIO FOLLOW FOCUS etc. are attached to the base plate. You will not need the plate when using prime lenses, flanged FILTER HOLDERS, SUNSHADES and LIGHTWEIGHT FOLLOW FOCUS.

#### Caution:

In case no original MOVIECAM base plate is used, do not screw the attaching screws further than 7 mm into the threaded sockets of the camera base. Longer screws may damage the camera. When attaching the base plate, care should be taken that it sits flat on the camera base.





sliders **[43]** toward the center and turn the rings so that each one of the two dots of the same color face the center and the locating pins engage in the holes.

White = STANDARD 35 format Red = SUPER 35 format

CHAPTER 11 SUPPORT, FOLLOW FOCUS AND MATTE BOX

117













SUPPORT, FOLLOW FOCUS AND MATTE BOX







This MATTE BOX is equipped with two filter stages **[b]** for altogether four  $6.6'' \times 6.6''$  filters, two each rotatable and sliding through, as well as two toothed filter frames, operable with a rotary knob or flexible shaft. The 4x filter stage has a receptacle **[a]** on the rear for 6'', 138mm or  $4^{1}/_{2''}$  filter rings, as well as for reflex prevention rings **[e]** and an additional 4'' x 4'' filter stage. The 4x filter stage can be interchanged against other filter stages. The MATTE BOX can be swung open to the front for easy lens cleaning.

By lifting the lever **[d]** on the top right side, unlock the MATTE BOX and swing it open to the front. After swinging it back, care should be taken that the lever locks into place again. Additional holders **[c]** on the MATTE BOX serve for fastening French flags. →

125



Some filter stages have a gear drive that may be operated with the hand wheel **[g]** via a flexible shaft to move a toothed filter frame **[h]**.

126



The MATTE BOX with its filter stages is attached mobile to two short rods **[i]**. The gear **[j]** engages in the toothed lower rod **[k]**. To move the MATTE BOX forward or backward without having to move the whole bracket, loosen the locking lever **[I]** and turn the gear **[j]**. The asymmetrical upper bracket **[m]** allows to adjust the MATTE BOX to the lens more precisely. Loosen the adjusting screw **[n]** and turn the knob **[o]** at the rear end of the upper rod.

Caution: When using graduate filters, care should be taken that the filter, when in its lower position, does not touch the rods.

127





The ASSISTANT WORK LIGHT is mounted either on top of the SL body, on top of a READOUT or on top of a MOVIELITE like a flash to a still camera. After loosening the fixing screw, slide the light shoe into one of the several brackets and tighten the screw. Disconnect the camera, then connect the short coiled cable (similar to that of the eyecup heater) to the connector **[8]**. The light is switched on by turning its cap **[A]**.

Always carry a spare bulb (24 V/4 VV) with you.

130



In addition to the various cleaning tools, the camera assistant needs only four other tools to work with the MOVIECAM SL:

With **[T1]**, you attach the BASE PLATE to the camera. With **[T2]**, you can mount and remove e.g. VIEW-FINDER, HANDGRIPS etc.

**[T3]** is used for different tasks which should, however, best be left to the experts of the rental house. With **[T4]**, you exchange the GROUND GLASS and set the mirror shutter anale.

Caution: Compressed air should only be used for blowing the magazines! Apart from this, high pressure does more harm than good, especially to glass surfaces.

131



The DIRECTORS FINDER allows to look for set-ups by using the lenses of the MOVIECAM SL. GROUND GLASSES, COMPACT VIEWFINDER systems and RIGHT HANDGRIP may be attached to the directors finder in the same way as to the camera. VIEWFINDER - even VIDEO CAMERAS, prime lenses, an own GROUND GLASS (same format as in the MOVIECAM SL) and RIGHT HANDGRIP are usually mounted to the DIRECTORS VIEWFINDER. The threaded socket (M5) at the rear of the finder and the pin hole can be used as finder attachment.

132

Now that you have read the whole manual, you already know the SL by heart.

Just attach the tape measure to the hook and start shooting.



CHAPTER 12 MISCELLANEOUS

133

134	

Notes:

# **APPENDIX** CONNECTORS AND CABLES



#### CONNECTORS AND CABLES



CONNECTORS AND CABLES