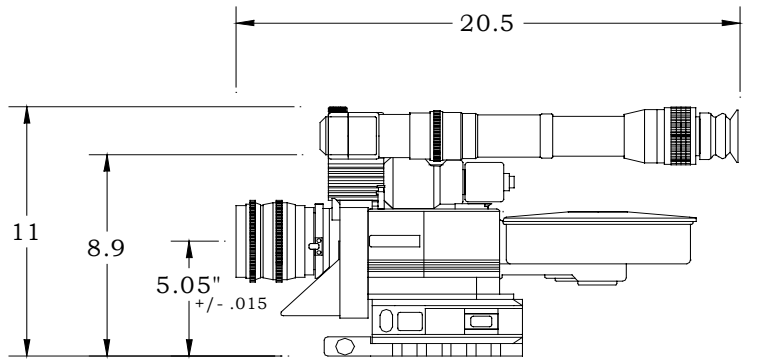
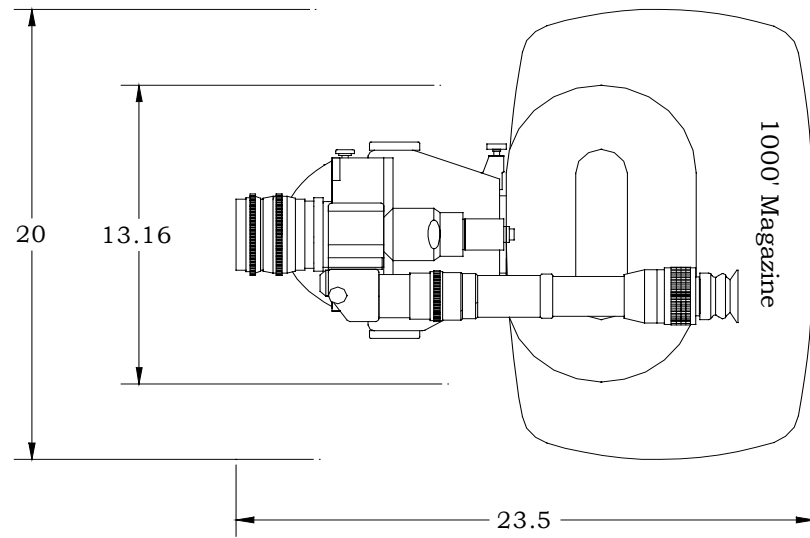


**Outline Drawing**



3/8-16 Mounting Holes on 1" center/ Centered to Lens

<b>Weight:</b>	Camera	20 lb.
	400' Mag w/ Film	7 lb.
	Mattebox	7 lb.
	Lens w/aks	<u>5 lb.</u>
	<b>TOTAL</b>	<b>39lb.</b>

**Beaumonte Mini Vistavision Camera**



**Users Manual**

Note: Specifications are subject to change without notice.  
Information By Shawn Jolicoeur

## Technical Specifications

**Movement:** 8-Perf pull down, 3-pin registration. 2-72 fps  
**Aperture:** 1.485" x .991" (Imagica Scan 1.451" x .967")  
**Ground Glass:** 1.85 (TSL) 1.385 x .749  
2.40 (TSL) 1.407 x .586  
**Shutter:** 170 Degree Balanced Aluminum Mirror.  
**Motor:** Crystal speeds from 2 to 72 FPS  
Reverse Run to \_\_\_FPS  
**Power:** 4 pin XLR Power In / Pin 4 Pos. & Pin 1 Neg.  
2-11 Pin Fischer Accessory Connectors  
**Input Ext. Drive:** Internal switch 200 or 3200 pulses per second  
**Battery:** **24 volts** 3 Pin XLR/ Pin 1 Pos, Pin 2 Neg  
**Battery:** **12 volts** 4 Pin XLR/ Pin 4 Pos., Pin 1 Neg.  
**BELOW 24 FPS MUST USE 12 VOLTS**  
**Amps:** 400' @ 24fps 3-5 amps. 1000' mags 6-8 amps.  
**Lens Mounts:** Leica, Panavision and Nikon  
**Note:** Not all Panavision lenses will cover the 8 perf Vistavision Format. Check lenses (at infinity) for mirror clearance with clearance tool before placing on camera. Optical performance outside the normal 4-perf area should also be considered when using Panavision's lenses.

**Magazines:** Arri 2C or Arri 3 400' to 72 fps  
Custom 1000' Arri magazine. 1000' to 48fps.

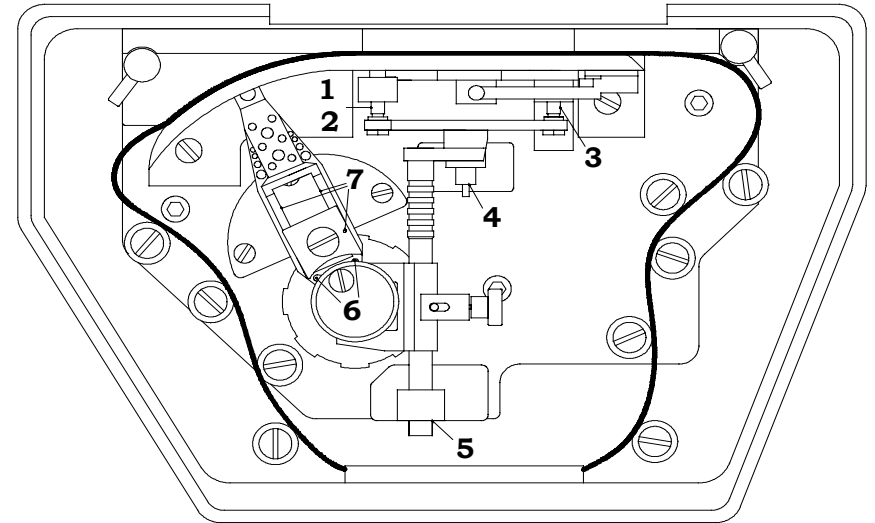
**Video:** Sony 999, CEI Color 5,  
Panasonic US-522 3ccd Sony DXC-390 (PAL)

**Weight:** Camera 20 lb.  
400' Mag w/ Film 7 lb.  
Mattebox 7 lb.  
Lens w/aks 5 lb.  
TOTAL 39lb.

**Accessories:** Arri 15mm Rods. Arri MB-18 Mattebox.  
CE Remote Tachometer  
Steadicam Balance Motor and Under-slung Plate  
Panavision Mount Vistavision Viewfinder

## Threading

Thread film as shown. Movement roller position vary in each camera.  
Make sure film does not hit inside walls.



## Oiling Points

(1, 2, 3) Registration Pins (4) Reg. Pin Guide (5) End Shaft Piston  
(6) Pulldown Arm Eccentric (7) Pulldown Arm Block

## Oiling Intervals

Lightly oil every 2000' High Speed every 1200' Swab Excess Oil

## Movement Service

**If movement is removed from camera for cleaning make certain it is replace correctly. Failure to do so will cause timing to be off 180°. Always check timing after service.**

## Cleaning pressure plate

Clean pressure plate every 1200'. Make certain that rollers are all moving free. Use caution when replacing pressure plate assembly. Make certain that assembly holding pressure plate in place is registered with bearing.

## Camera Power

**IMPORTANT: Framerates below 24 fps use 12 volts otherwise motor will overheat and damage motor fets. Avoid running 1000' mags in one take. Allow motor to cool when possible. Front of motor will get hot when amps are excessive.**

**Amps:** 400' @ 24fps 3-5 amps. 1000' mags 6-8 amps.

Use Smart Cable to Check

## XLR 4-pin

1 Negative

2

3

4 Positive

## Fischer 11 Pin

1 Shutter Ground

2 Shutter Pulse

3 Single Frame

4

5 Ground For External Speed

6 Tachometer Out 200 HZ / Frame

7 Camera Run +12 volts

8 External Speed 3200 or 200 HZ/ Frame

9 Ground For External Speed

10

11 + 12 Volts

**Color 5 Video Note:** When Using the CEI Color 5 Video it is important to plug cables in a correct sequence. Always power up camera before plugging in Color 5 power to accessory connector.

**12 Volts from Camera Note:** When shooting high speeds it is recommended to use a different power source other than motor base power. Camera may not run to 72 fps with accessories such as Preston FIZ utilizing motor power.

**VISTAVISION RUN TIMES**

FEET	FRAMES	24 FPS	48 FPS	72 FPS
3	24	1 sec.		
6	48	2 sec.		
10	80	3.3 sec.		
15	120	5 sec.	2.5 sec.	
25	200	8.3 sec.	4 sec.	2.7sec.
50	400	16 sec.	8 sec.	5 sec.
75	600	25 sec.	12 sec.	8 sec.
100	800	33 sec.	16 sec.	11 sec.
200	1600	1 min. 7 sec.	33 sec.	22 sec.
300	2400	1 min. 40 sec.	50 sec.	33 sec.
400	3200	2 min. 13 sec.	66 sec.	44 sec.
500	4000	2 min. 46 sec.	83 sec.	
600	4800	3 min. 20 sec.	100 sec.	
700	5600	3 min. 53 sec.*	116 sec.*	
800	6400	4 min. 26 sec.*	133 sec.*	
900	7200	5 min.*	150 sec.*	
1000	8000	5 min. 33 sec.*	166 sec.*	

**Magazine Notes:** For Vista Loop bring film to tape mark at top of 400' mag. Mag Torques must be maintained to factory specifications.

Arri 2c and Arri 3 400' Reversible Magazines. Subrented magazine can be used, however it is important to check rail clearance with a full load. Some magazine rails sit high causing binding. To see if there is enough clearance run a 400' dummy load stopping at 100'. A standard piece of film (.006" thickness) should fit between roll on take-up and rails. Repeat at 300'. Another good indication that a mag needs to be serviced is by a kicking type sound made when starting camera.

## Custom 1000' Arri magazine. 1000' to 48fps.

Only supplied custom 1000' magazines can be used.

For correct loop size use tape mark on magazine.

\*Avoid running long takes on 1000' magazine.

Overheating the motor base will occur.

1000' Magazines can be problematic on certain shooting rigs.

## Lenses

Leica Lenses	Minimum Focus	Nodal From Filmplane Approximated
15mm f3.5	6 in.	
16mm Fisheye	1 ft	
19mm f2.8	1 ft	3.3 "
25mm f2.8	1 ft	3.03"
28mm f2.8	1 ft	2.75"
35mm f2	1 ft	3.0"
50mm f2	1 ft 8 in.	2.38"
80mm f1.4	2 ft 8in.	2.05"
100mm f2.8 Macro	1 ft 6 in.	4.30"
135mm f2.8	4 ft 11 in.	1.83"
180mm f2	5 ft.	- 4.85"
280mm f2.8	7 ft 6 inches	- 7"
560mm f5.6	7 ft	
35-70m f3.5	3 ft 4 in.	

Standard SLR lenses must be checked often when used for motion picture applications. Especially in environments and on camera rigs that vibrate excessively.

**Panavision Mount Lenses:** There are sets of Leica lenses re-housed to Panavision mount. Focal lengths start at 19mm.

**Panavision Primo's 50mm and Longer:** We have worked with the 35mm Primo, however the lens performance at edges must be tested before shooting.

**Lightweight Zoom 27-68mm:** This lens works when front shade and back element shield are removed or modified.

**Panavision Telephoto Lenses:** The optics of these lenses will cover the Vistavision format. Lenses must be prepped with camera to check for mechanical clearance.

**Lens Support:** Subrent Arri 15mm to Panavision Rod Adapter

Lens Mount Options (Vary by Supplier): Leica, Panavision, Nikon, Contax and BNC. PL mount does not work with Vistavision.

## Horizontal Lens Equivalents

VISTA	ANAM.	ACAD.	Super 35	24p HD	ANGLE
Full Scan					
<b>1.451"</b>	<b>1.676"</b>	<b>0.864"</b>	<b>.980"</b>	<b>.377"</b>	<b>Degrees</b>
Multiply	x 1.155	x .595	x .675	x .259	
15mm	17mm	9mm	10mm	4mm	101.7°
19mm	22mm	11mm	13mm	5mm	88.24°
24mm	28mm	14mm	16mm	6mm	75.03°
25mm	29mm	15mm	17mm	6mm	72.78°
28mm	32mm	17mm	19mm	7mm	66.69°
35mm	40mm	21mm	24mm	9mm	55.53°
45mm	52mm	27mm	30mm	12mm	44.53°
50mm	58mm	30mm	34mm	13mm	40.46°
60mm	69mm	36mm	41mm	16mm	34.14°
80mm	92mm	48mm	54mm	21mm	25.94°
100mm	116mm	60mm	68mm	26mm	20.88°
135mm	156mm	80mm	91mm	35mm	15.54°
180mm	208mm	107mm	122mm	47mm	11.69°
200mm	231mm	119mm	135mm	52mm	10.53°
280mm	323mm	167mm	189mm	73mm	7.53°
300mm	347mm	179mm	203mm	78mm	7.03°
400mm	462mm	238mm	270mm	104mm	5.27°
500mm	578mm	298mm	338mm	130mm	4.22°
560mm	647mm	333mm	378mm	145mm	3.77°
600mm	963mm	357mm	405mm	155mm	3.52°
800mm	924mm	476mm	540mm	207mm	2.64°
1000mm	1155mm	595mm	675mm	259mm	2.11°

## Fisheye Lenses

8mm Nikon or PV Mount

180° Circular View\*

\* Circular Image on Vista

16mm Leica Mount

150° Horizontal View

16mm Fisheye lens distorts image.

6mm Fisheye From Panavision

220°

\* Circular Image on Vista

Panavision Fisheyes may have shades built on not allowing for full circular image

## Changing Lens Mounts

There are six bolts that hold the lens board to the camera body. In some cases a lens mount may need to be changed in the field. Follow the listed instructions to change mount.

1. Remove Arri Rod Base
2. Remove CEI Motor Base
3. Remove 2 allen screws behind mirror cover.
4. Remove 4 allen bolts at front of mount
5. Carefully Remove lens mount

### Replacing Lens Mount

Make certain that seating surfaces are clean and are free of burrs.

6. Place on lens mount and replace 4 bolts
7. Tighten 4 bolts evenly
8. Replace and tighten back 2 bolts.

### Replace CEI Motor Base

9. Place Mirror to mid viewing position
10. Power up and run motor stop and mark top parked position

The rubber motor coupling and the steel camera coupling may have a mark to indicate key engagement.

11. Evenly tighten motor base.

To find the best seating position for motor you can run motor at a slow frame rate and tighten bolts as camera is running.

12. Check Mirror park position.

Pulldown arms should be engaged at mid position.

13. Replace Arri rod base.
14. Check Flange

In most cases flange should be good as long as the correct serial number lens mount is replaced.

## Shutter Timing

**IMPORTANT: Make certain that shutter timing is correct. There is a chance that the timing belt will slip if the camera jams.** To check timing rotate movement extracting pull down claws. Place a piece a film at pull down area and carefully move claw stopping at film. Look through lens port. The mirror should be covering most of gate area. Bring pull down claw to opposite side. Mirror position should be symmetrical. Some cameras have a mark at mid shutter opening on both movement and mirror.

### Service by authorized technician is recommended.

If mirror needs to be adjusted in field, take off motor and cover plate to expose gear assembly. Adjust timing by loosening gear assembly that engages with shutter gear. Remove one of the two bolts and slip gear until timing is accurate. Fine adjustments can be made by loosening top tension rollers and sliding. Make certain that final tension is not too loose or too tight.

### Pulling Gate

1. Extract pulldown claws from plate area.
2. Extract register pins from aperture plate
3. Turn Aperture plate lockdown arms to loosen plate.
4. Evenly and carefully lift out plate.

**Safety Mounting:** When safety mounting the camera on rigs it is important to attach safety devices above the rod and motor base. The 3/8-16 mount on the rod base is held only with 4 4-40 screws at the motor.

**Prepping:** It is important to prep Vistavision camera with all necessary items and accessories. Items such as focus and iris motors may require special brackets.

**Steady Testing:** It is the responsibility of each production to steady test the cameras prior to use.