

Arriflex "B" connector (11 pin Fischer)

Mating connector : Part number S 104 A 056 –130 Chrome plug, PEEK
E3 104.6/6.7 (.240 cable collet)
(microphone cable size).

Manufacturer Fischer
Source W.W. Fischer
1735 Founders Parkway - Suite 100
Atlanta, GA 30004
v (800) 551-0121 f (678) 393-5401

Pinout

1	Shutter Ground
2	Shutter Sync Out
3	Single frame
4	N/C
5	Ext speed (short to pin 9 to enable external speed control)
6	Tach out, 200PPF
7	Remote run (short to pin 11 to run)
8	External speed in (typically 200 PPF in 35mm cameras, 3200 PPF in Arri SR/SRII series)
9	Ground
10	N/C
11	+12 VDC

notes: Most cameras internally connect pin 1 and pin 9, but check before making any assumptions. The 11 pin connector on 435/535 family cameras responds the same way as a normal 11 pin connector to a run switch. It has to stay continuously closed, despite the fact that the other connectors on these cameras use a momentary run switch.

When interfacing a Kuper card to cameras using this connector, you may have to experiment a bit. The signals are usually there, but some cameras have a large series resistor in line with sync which combines with the Kuper input resistor to form a voltage divider. Some facilities have had to change the resistors on older PTMC48 cards.

note when ordering: Fischer will sell small quantities of connectors directly, but will only do so COD, they do not take credit cards, and orders must be submitted by fax.

Arriflex 435 / 535 / SRIII ACC connector (9 pin Fischer)

Mating connector : Part number S 104 A 055 –130 Chrome plug, PEEK
E3 104.6/6.7 (.240 cable collet)
(microphone cable size).

Manufacturer Fischer
Source W.W. Fischer
1735 Founders Parkway - Suite 100
Atlanta, GA 30004
v (800) 551-0121 f (678) 393-5401

Pinout

- 1 /E-RUN (camera start/stop, momentary to GND)
- 2 TACH PULSE (motor tach, 4800Hz @ 24FPS)
- 3 +24V (battery – may be up to 30V)
- 4 GND
- 5 SEL 1 (accessory identifier 1 input)
- 6 SEL 2 (accessory identifier 2 input)
- 7 L2 (interface I/O 2, usually default 1 PPF out)
- 8 L1 (interface I/O 1)
- 9 Startmark out / programming pin

SEL 2	SEL1	Function select
open	open	normal, L2 - 1 PPF out
open	gnd	MCL mode, L2 TC out, L1 TC in
gnd	open	EXS mode, L2 1PPF out L1 1PPF ext speed control in
gnd	gnd	VSU/SCU/RU mode

NOTES: In this camera L1 and L2 are selectable outputs designed to provide signals to Arri accessories. The exact function on either pin depends on the status of lines SEL1 and SEL 2, and, unfortunately, on the exact software revision in the camera. Most cameras default to 1PPF out with both select lines open, some serial numbers will require you to ground SEL 2 (pin 6).

Run is normally open, momentary contact to gnd to start/stop.

Pinout data courtesy of Roger Reddy @ Arriflex.

note when ordering: Fischer will sell small quantities of connectors directly, but will only do so COD, they do not take credit cards, and orders must be submitted by fax.

Arriflex 435 / 535 / SRIII remote/accessory (3 pin Fischer)

Mating connector : Part number S 102 A 052 -130 Chrome plug, PEEK
E3 102.5/4.7 (.180 cable collet)

Manufacturer Fischer
Source W.W. Fischer
1735 Founders Parkway - Suite 100
Atlanta, GA 30004
v (800) 551-0121 f (678) 393-5401

Pinout

- 1 GND
- 2 +24V (battery – may be up to 30V)
- 3 /E-RUN (camera start/stop, momentary to GND)

Run is normally open, momentary contact to gnd to start/stop.

note when ordering: Fischer will sell small quantities of connectors directly, but will only do so COD, they do not take credit cards, and orders must be submitted by fax.

Fries motor connector (8 pin TMW)

Motor Control – M-120

Mating connector :	Part number	R05-PB8M
	Manufacturer	TMW
	Source	Fries Engineering 8743 Shirley Northridge, CA v (818) 998-5400

Pinout

A	+30V out (from battery V in)
B	Run (+30V in @ 50 ma. Short A & B together to start camera)
C	GND
D	Brake in
E	Shutter pulse out (appx 12V P-P, once per frame)
F	Tach out (25PPF, 600Hz @ 24FPS)
G	Ext FPS in (Digital, at 1/2 tach rate, or analog, 2VDC \approx 24FPS)
H	Remote enable (+30V in. Selects analog instead of digital mode on pin G)

Remote Run – HS-35R

Mating connector :	Part number	PB5M
	Manufacturer	TMW

Pinout

A	Ready +32V
B	+12V
C	GND
D	Remote run (short to pin B to run)
E	Speed Signal out

Notes: Pinout data courtesy of Fries Engineering.

Jackson / Woodburn DMS-120 (D- Shell)

Mating connector : Part number standard 9 pin D shell male

(Note: J/W intends to change to a 9 pin Fischer in future production)

Manufacturer various

Pinout

1	GND (common)
2	RS232 out
3	RS232 in
4	Sync out
5	Run / Stop
6	Sync Select
7	N/C
8	N/C
9	+15V (for accessories)

Lynx Robotics C-50M (19 pin Lemo)

Mating connector : Part number FGG 2B 316 CLAC 72 (PEEK insulation, chrome)
note, above connectors have .240 collet
(microphone cable size)

Manufacturer Lemo
Source Lemo Connectors, Inc
P.O. Box 2408
Rohnert Park, CA 94927-2408
v (800) 444-5366, (707) 578-8811
f (707) 578-0869

Pinout

- 1 GND (common)
- 2 +5VDC out (for accessories)
- 3 Aux run switch (short to GND to run)
- 4 Remote run enable (active low, short to GND to enable Step/Dir signals in MOCO mode)
- 5 Remote step (MOCO mode step in, 1024 PPF, on rising edge)
- 6 Remote direction (MOCO mode, low commands reverse)
- 7 Reserved
- 8 Operation (active low, indicates motor running)
- 9 Clock out (encoder pulses @ 1024 PPF)
- 10 Reverse out (active low, indicates cam set to run in reverse)
- 11 Center of Pulldown (1 PPF, index pulse from encoder)
- 12 + Battery out
- 13 Reserved
- 14 Sync #2 out (factory programmed for various things)
- 15 Sync #1 out (factory programmed for various things)
- 16 Capping shutter control (loops to pin 2 of capping shutter conn)

NOTES - The sync pulses in this motor come out of a programmable logic chip and can (and do) vary from camera to camera. The primary sync pulse is found on pin 11, though depending on the programming revision, good signals may also be found on pins 14 or 15. Note that the sync pulse on pin 11 is the actual encoder index pulse (usually active high); it gets very short at high speed and may need to be pulse-stretched for external systems (like the Kuper) to sync up. All sync signals are TTL type.

Moviecam SA connectors (5 pin Fischer)

1) Sync Connector

Mating connector : Part number S 103 A 054 -130 Chrome plug, PEEK
E3 104.6/6.7 (.240 cable collet)
(microphone cable size).

Manufacturer Fischer
Source W.W. Fischer
1735 Founders Parkway - Suite 100
Atlanta, GA 30004
v (800) 551-0121 f (678) 393-5401

Pinout, Sync Connector

- | | |
|---|--|
| 1 | Pilot (5VAC P-P, selectable, 50Hz @ 24FPS, 25FPS,
60 Hz @ 24 FPS) |
| 2 | TRP (Shutter pulse out, +5V for 1.7mS, in open position) |
| 3 | Clapper for Nagra |
| 4 | Select Pilot (N/C = 50Hz, GND = 60Hz) |
| 5 | GND |

2) Camera Run Connector – Original Moviecam connector

Mating connector : Part number S 102 A 051 -130 Chrome plug, PEEK
E3 102.5/4.7 (.180 cable collet)

Pinout, 1 Cam Run 1
 2 Cam Run 2

3) Camera Run Connector – cameras modified for Arri style accessories (i.e. Clairmont)

Mating connector : Part number S 102 A 052 -130 Chrome plug, PEEK
E3 102.5/4.7 (.180 cable collet)

Pinout, 1 Cam Run 1
 3 Cam Run 2

Short Cam Run 1&2 momentarily to start camera, short again momentarily to stop camera, (designed for momentary switch in handgrip). Pinout data courtesy MovieCam, Austria.

Note that this information *does not* match that in the Moviecam documentation. The pin numbers in the Moviecam docs are assigned by diagram and *do not match* the numbers on the back of the Fischer connectors. The above numbers are correct as marked on the connectors. Note when ordering: Fischer will sell small quantities of connectors directly, but will only do so COD, no credit cards, and orders must be submitted by fax.

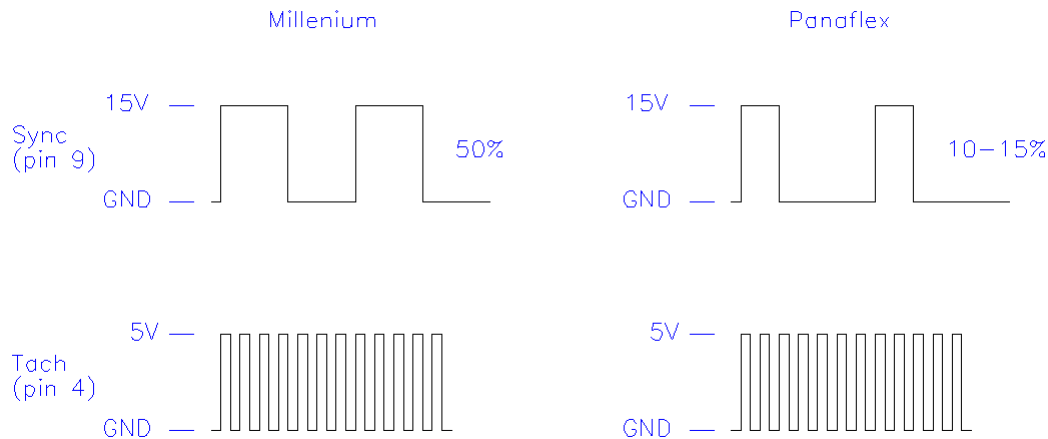
Panavision accessory connector (10 pin Lemo)

Mating connector : Part number FFA 2S 310 CLAC 72 (PEEK insulation, chrome)
FFA 2S 310 KLAC 72 (PEEK insulation, black)
note, above connectors have .240 collet
(microphone cable size) for .220 collet change
72 to 62

Manufacturer Lemo
Source Lemo Connectors, Inc
P.O. Box 2408
Rohnert Park, CA 94927-2408
v (800) 444-5366, (707) 578-8811
f (707) 578-0869

Pinout

- 1 +24V (battery) out
- 2 GND
- 3 Cam Run (+9V out when camera runs)
- 4 Tach Out (5V P-P @ appx 50%
Panastar 250 PPF, 6000Hz @ 24FPS,
Panaflex 200 PPF, 4800 Hz @ 24 FPS)
- 5 N/C
- 6 Remote plug relay (short to GND to enable external sync)
- 7 Remote Clock in
- 8 GND
- 9 Shutter Pulse Out (15V P-P, appx 10% duty cycle in Platinum,
50% in Millenium Once per frame)
- 10 Remote On/Off (short to GND to run camera)



Notes: Tach out is driven from a 4000 series CMOS driver at 5V, thru a 1K resistor; Sync out from a 4000 series CMOS driver at 15V, also thru a 1K resistor.

Panavision accessory power plug (2 pin Lemo)

Mating connector : Part number FFA 1S 302 CLAC 44 (PEEK insulation, chrome)
FFA 1S 302 KLAC 44 (PEEK insulation, black)
note, above connectors have .170 collet

or

FFA 0S 302 CLAC 44 (PEEK insulation, chrome)
FFA 0S 302 KLAC 44 (PEEK insulation, black)
note, above connectors have .170 collet

Manufacturer Lemo
Source Lemo Connectors, Inc
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Pinout

1 +24V (battery) out
2 GND

note: both 1S (12mm across) and 0S (9mm across) connector sizes are used on Panavision cameras. The larger (1S size) is more common.

(on camera, pin 2 (GND) is the bare pin)

Rotavision (8 pin TMW)

Mating connector :	Part number	PRC-05
	Manufacturer	TMW
	Source	Rotavision 2313 West Olive Avenue Burbank, CA 91506 v (818) 567-1320 f (818) 426-8423

Pinout

- A 1 PPF, edges at shutter centered open & closed, running forward falling edge signifies shutter at center closed
- B Output - 400 PPF
Input - pull to gnd to force camera to slave lock
- C & D COM A, COM B. Motor phase quadrature inputs (slave) / outputs (master), 512 PPF
- E Capping shutter out, active low to GND, will sink 1 amp reverse diode protected.
- F BATT +
- G COM C, encoder common for pins C&D
- H Pulse Mode Set (pull up to +12V to enable Pulse Input Mode)

NOTES - Output pins A & B are actively pulled low, passively pulled up to +5V through 1K Ω . Output pins C & D, COM A & COM B, are actively pulled low, passively pulled up to pin G, COM C through 1K Ω . Pinout data courtesy Rotavision, Australia.

Wilcam W7, W9, W11 & ILM Vistaflex (19 pin Lemo)

Mating connector : Part number FGG 2B 319 CLAC 72 (PEEK insulation, chrome)
FGG 2B 319 KLAC 72 (PEEK insulation, black)
note, above connectors have .240 collet
(microphone cable size) for .220 collet change
72 to 62

Manufacturer Lemo
Source Lemo Connectors, Inc
P.O. Box 2408
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Pinout

- 1 GND
- 2 N/C
- 3 Run/Stop (Ground to run camera)
- 4 Ref In (250 PPF, 6000Hz @ 24FPS)
- 5 Ref Out (25 PPF, 600Hz @ 24FPS)
- 6 Sync Alarm (Hi - sync good, Lo - no sync)
- 7 Pulse Mode Set (pull up to +12V to enable Pulse Input Mode)
- 8 Shutter Open/Close (Ground for stop shutter closed)
- 9 FWD/REV (Ground for reverse)
- 10 Shutter Pulse 1 (1PPF out @ 0°)
- 11 Shutter Pulse 2 (1PPF out @ 90°)
- 12 25 PPF Out (25 PPF motor encoder)
- 13 Acc Control (pull to +12V for no acceleration)
- 14 Aux Sense (Ground for Aux mode)
- 15 Mag Ready Alarm (Hi out = mag ready)
- 16 Buckle Alarm (Hi = buckle)
- 17 Mirror Pulse (1PPF, center shutter closed, pulse goes to GND)
- 18 N/C
- 19 +30VDC (battery voltage out)

NOTES - On most of these cameras, outputs are actively pulled low, passively pulled up to +12V through 3K Ω , or more. Some serial #'s may need additional external pullup to generate suitably strong output signals for driving devices such as Kuper computers. Inputs are pulled up to +12V through 1K Ω . These cameras have shop-set shutters, standard is 170 or 144 degrees. Pinout data courtesy of ILM.