

Sony Half-Inch Lenses



**WIDE
POWER**

QuickZoom

HS16x4.6BERM

HS16x4.6BERM



QuickZoom



Zoom Ratio / Format	16X / 1/2"
Focal Length	4.6 to 74 mm
Extender	(2X) 9.2 to 148 mm
Maximum Relative Aperture	1:1.4 (4.6 ~ 47 mm) 1:2.2 (74 mm)
Maximum Photometric Aperture T-No.	1:1.5 (4.6 ~ 47 mm) 1:2.4 (74 mm)
Angular Field of View	4.6 mm74° 18' x 46° 09'
16:9 Aspect Ratio	74 mm5° 24' x 3° 02'
M.O.D. from Image Plane	0.68 m
M.O.D. from Front of Lens	0.40 m
Object Dimensions at M.O.D.	4.6 mm710 x 399 mm 74 mm44 x 25 mm
Filter Size	ø 107 mm P=1 (In Hood)
Dia ø x Length (w/o Hood)	ø95 x 240 mm
Weight (w/o Hood)	1.98 kg
Options	16 Bit Encoder
Features	Inner Focus / Quick Zoom / Zoom Limit

DIGIPOWER

In order to enhance the newest optical design technology, Fujinon has developed the digital servo control system **DIGI POWER** offering advanced performance of its zoom lenses. In addition to improved specification and performance the utilization of digital circuitry in our **DIGI POWER** product line has made many new features available that were virtually impossible in the past. **DIGI POWER** lenses provide for vastly improved accuracy and repeatability over previous designs and enable custom control parameters to be memorized for individual camera operator's preferences. An optional 16 bit processor for zoom, focus and iris is available for applications requiring a high degree of accuracy.

QUICKZOOM speed is 0.6sec. / .07 sec.* from end to end. **QUICKZOOM** provides a rapid zoom movement to the telephoto position to check focus by the simple push of a button. Releasing the button returns the lens to the previously selected zoom position. Furthermore, by setting the switch, **QUICKZOOM** can be performed remotely from zoom rate demand units.

* 0.6sec. : Studio and Field lens
0.7sec. : ENG/EFP lens



Frame your shot.

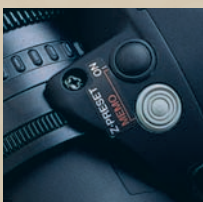
Press Q-Z button.

Lens automatically zooms in. Check focus and release Q-Z button.

Lens zooms back to original frame in full focus.

QUICKZOOM solves the problem of having to reframe a shot after checking focus. This exclusive feature is a standard component on all of DIGI POWER lenses.

Utilizing the **QUICKZOOM** function can be an extremely time saving and productive production tool, by allowing a quick check if focus after a framed shot has been established. Simply press the Q-Z button and the lens zooms in tight at maximum speed, check focus and release the Q-Z button. The lens zooms out to the pre-selected shot automatically. No more guess work as to what the framed shot was prior to checking focus.

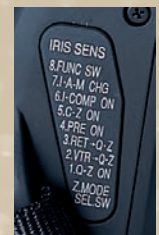


ONE SHOT PRESET

Zoom and focus can be preset and memorized in advance at a selected position. One touch of the switch during shooting will instantly return to the memorized position for time saving production.

ZOOM MODE SELECT

A zoom mode switch provides the option to change the zoom response from "normal" to more sensitive on the wide or telephoto side. With the 3-zoom mode (10-zoom mode on ENG/EFP) the user can select the most suitable fine touch. These zooming mode settings are ideal when switching between productions such as drama and sports.



ZOOM LIMIT

The zoom limit function can be used in the servo operational mode. By using this function, the zoom movement toward both the wide side and the telephoto side can be limited. An override switch quickly returns the lens to normal mode.



Standard on: DIGI POWER Studio and Field lens, DIGIPOWER ENG / EFP lens

AUTO-CRUIISING ZOOM

Pressing the C-Z button while zooming will fix the zoom speed at the existing rate. Pressing the seesaw switch a second time slightly will return the zoom speed to normal.

Standard on: DIGI POWER Studio and Field lens, DIGIPOWER ENG / EFP lens



ZOOM MAXIMUM SPEED ADJUSTMENT

The maximum zooming speed obtained when pressing the seesaw switch to the end can be adjusted.



16 BIT ACCURACY FOR REMOTE CONTROL

Remote control of zoom, focus and iris for all **DIGI POWER** lenses is possible via 13 bit serial digital connection. Optional 16 bit processing is available for more accurate positioning in virtual studios and other applications.

ACCESSORY COMPATIBILITY

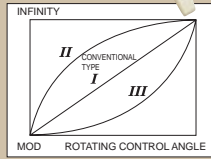
Analog control accessories can be used with the **DIGI POWER** lens. (Some functions may be limited.)



ACCESSORIES: HD & SD ENG/EFP

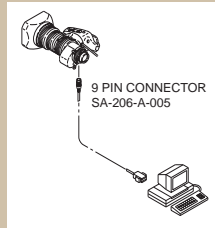
THREE-MODE FINE FOCUS

By shifting the sensitivity from the wide side to the telephoto side of the focus range, this control provides more precise focusing for studio or sports productions.

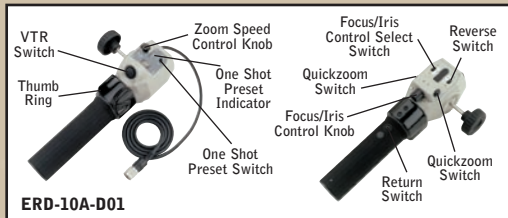


SERIAL DIGITAL REMOTE CONTROL BY PC

Remote control of zoom, focus and iris for Digipower lenses is possible via serial digital link, providing accurate positioning for virtual studio and other applications requiring digital precision.



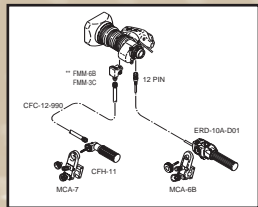
DIGI ZOOM DEMAND*



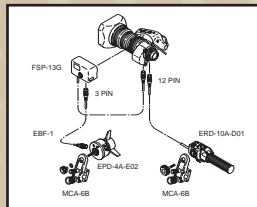
*New Digital features only available on ERM/ERD-M/S.

DIGI POWER REAR CONTROL KITS

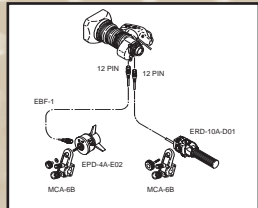
MS-11D Manual Focus/Servo Zoom
For use with RM/ZM type lenses.



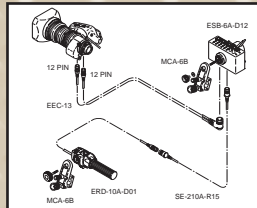
SS-11D Servo Focus/Servo Zoom
For use with RM/ZM type lenses.



SS-13D Servo Focus/Servo Zoom
For use with RD/ZD type lenses.

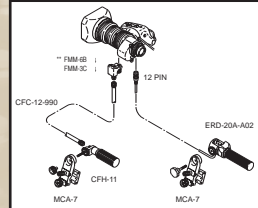


SS-14S Servo Focus/Servo Zoom
For use with RD/ZD type lenses.

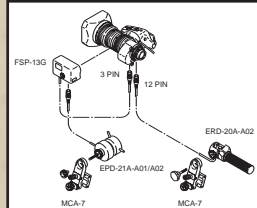


STANDARD REAR CONTROL KITS

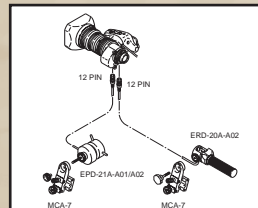
MS-11 Manual Focus/Servo Zoom



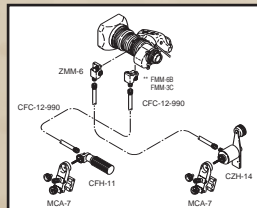
SS-11 Servo Focus/Servo Zoom
Not available on HA42x, HA36x and A36



SS-13A Servo Focus/Servo Zoom
For use with ERD type lenses.



MM-11 Manual Focus/Manual Zoom
Not available on HA42x, HA36x and A36x



*Specify camera type

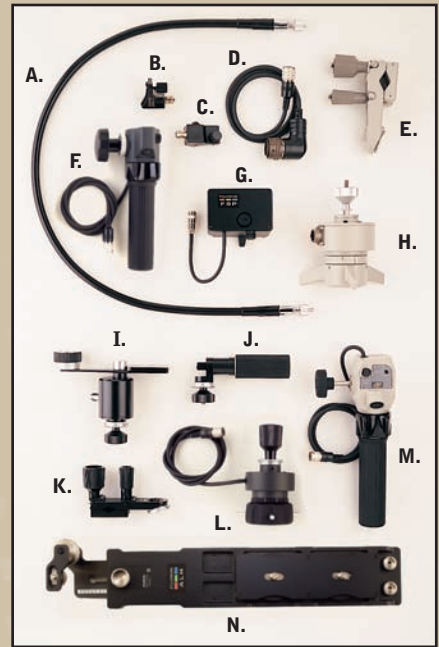
**FMM-3C for use on HA36x, HA42x and HA25x

MOUNTING SYSTEM

Fujinon has replaced the "cone" shaped mounting system with the "tooth" system. The cone type may still be ordered as a special order.



- A. CFC-990 Flex Cable
- B. FMM-3B/6B Manual Module
- C. ZMM-6 Manual Module
- D. EBF-1 Focus Cable
- E. MCA-6
- F. ERD-20A-A02 Zoom Demand
- G. FSP-13G Focus Positional Module
- H. EPD-4A-E02
- I. CZH-14 Focus Handle
- J. CFH-11 Focus Handle
- K. MCA-7 Mounting Clamp
- L. EPD-20A-A01/A02 Focus Demand
- M. ERD-10A-D01 Zoom Demand
- N. ALH-117A-02A Support for HA36x/A36x HA42x



Note: ERD-20A-A02 (F) and EPD-20A-A02 (L) replace the ERD-T22 and EPD-2CA.

LENS CONVERTERS



Wide Converter (WCV)



Tele Converter (TCV)

HD/ENG LENS CONVERTERS

Model	Type	ø Size	Converter*	Mag.	Converted Focal Length (mm)	M.O.D. (m)	Weight (kg)
HS16x4.6	TELE	95 mm	TCV-H95	1.5x	74.0 → 111.0	0.90	1.00
	WIDE	95 mm	WCV-H95	0.8x	4.6 → 3.9	0.29	1.00
HS18x5.5/ HSs18x5.5	TELE	85 mm	TCV-H85	1.5x	100.0 → 150.0	1.35	1.10
	WIDE	85 mm	WCV-H85	0.8x	5.5 → 4.4	0.38	1.05
	WIDE	85 mm	WAT-H85	0.7x	5.5 → 3.9	0.29	0.36
	FISHEYE	85 mm	F-ATH85	0.57x	5.5 → 3.1	0.19	0.36
HA16x6.3	TELE	95 mm	TCV-H95	1.5x	101.0 → 152.0	0.90	1.00
	WIDE	95 mm	WCV-H95	0.8x	6.3 → 5.4	0.29	1.00
HA18x7.6E/ HAs18x7.6	TELE	85 mm	TCV-H85	1.5x	137.0 → 205.5	1.35	1.10
	WIDE	85 mm	WCV-H85	0.8x	7.6 → 6.1	0.38	1.05
	WIDE	85 mm	WAT-H85	0.7x	7.6 → 5.3	-	0.36
	FISHEYE	85 mm	F-ATH85	0.57x	-	-	0.36
HA22x7.3E	TELE	110 mm	TCV-H110	1.5x	161.0 → 242.0	1.90	1.10
	TELE	100 mm	TCV-H100	1.5x	175.0 → 262.5	1.80	1.00
HA23x7.6E	WIDE	100 mm	WCV-H100	0.8x	7.6 → 6.1	0.51	1.05
	WIDE	100 mm	WAT-H100	0.7x	7.6 → 5.3	0.39	0.53
	FISHEYE	100 mm	F-ATH100	0.57x	7.6 → 4.3	0.26	0.63
	TELE	85 mm	TCV-H85	1.5x	94.0 → 141.0	1.35	1.10
XS17x5.5	WIDE	85 mm	WCV-H85	0.8x	5.5 → 4.4	0.38	1.05
	WIDE	85 mm	WAT-H85	0.7x	5.5 → 3.8	0.29	0.36
	FISHEYE	85 mm	F-ATH85	0.57x	5.5 → 3.1	0.19	0.36
	ZA17x7.6	TELE	85 mm	TCV-H85	1.5x	130.0 → 195.0	1.35
WIDE		85 mm	WCV-H85	0.8x	7.6 → 6.1	0.38	1.05
WIDE		85 mm	WAT-H85	0.7x	7.6 → 5.3	0.29	0.36
FISHEYE		85 mm	F-ATH85	0.57x	7.6 → 4.3	0.19	0.36
ZA22x7.6	TELE	100 mm	TCV-H100	1.5x	167.0 → 250.5	1.80	1.00
	WIDE	100 mm	WCV-H100	0.8x	7.6 → 6.1	0.51	1.05
	WIDE	100 mm	WAT-H100	0.7x	7.6 → 5.3	0.39	0.53
	FISHEYE	100 mm	F-ATH100	0.57x	7.6 → 4.3	0.26	0.63

*TCV/WCV are zoom thru type **ø 95mm P-1 screw on type
Wide attachment and fisheye attachment can be used at WIDE END.
Number of M.O.D. is at wide end.

