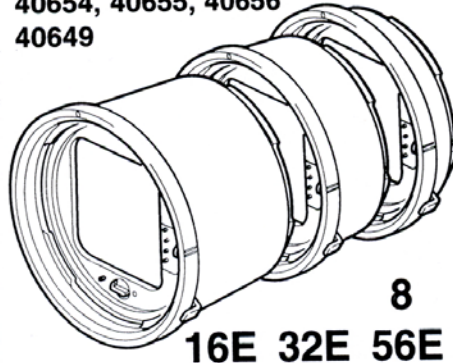


HASSELBLAD

40654, 40655, 40656
40649



8

16E 32E 56E

O	E	8		16		16+8		32		32+8		32+16	
		mm	in.	10	0,5	20	1	30	1,5	40	50		
PLANAR CF2,8/80	R		0,1		0,2		0,3		0,4		0,5		0,6
	D	mm	100	50	25			10		7			
	L	mm	600	300	200		150	125		100			
	EV				0,5					1			
PLANAR FE2,8/80	R		0,1		0,2		0,3		0,4		0,5		0,6
	D	mm	100	50	25			10		7			
	L	mm	600	300	200		150	125		100			
	EV				0,5					1			
PLANAR CF3,5/100	R		0,1		0,2		0,3		0,4		0,5		0,6
	D	mm	100	50	25			10		7			
	L	mm	600	300	200		150	125		100			
	EV				0,5					1			
PLANAR FE2/110	R		0,1		0,2		0,3		0,4		0,5		0,6
	D	mm	100	50	25			10		7			
	L	mm	600	300	200		150	125		100			
	EV				0,5					1			
MAKRO- PLANAR CF4/120	R		0,1		0,2		0,3		0,4		0,5		0,6
	D	mm	100	50	25			10		7			
	L	mm	600	300	200		150	125		100			
	EV				0,5					1			
SONNAR CF4/150 FE2,8/150	R		0,1		0,2		0,3		0,4		0,5		0,6
	D	mm	100	50	25			10		7			
	L	mm	600	300	200		150	125		100			
	EV				0,5					1			
SONNAR CF4/180	R		0,1		0,2		0,3		0,4		0,5		0,6
	D	mm	100	50	25			10		7			
	L	mm	600	300	200		150	125		100			
	EV				0,5					1			
SONNAR CF5,6/250 TELE-TESSAR FE4/250	R		0,1		0,2		0,3		0,4		0,5		0,6
	D	mm	100	50	25			10		7			
	L	mm	600	300	200		150	125		100			
	EV				0,5					1			

HASSELBLAD Extension Tubes

Instruction Manual



This Instruction Manual is common for the types of Hasselblad extension tubes listed below:

40649 Extension Tube 8 40655 Extension Tube 32E
40654 Extension Tube 16E 40656 Extension Tube 56E

Parts and Components

- | | |
|--------------------------------|-------------------------|
| 1. Tube body | 5. Lens drive shaft |
| 2. Attaching index | 6. Drive shaft catch |
| 3. Contact bridge (not tube 8) | 7. Bayonet plate |
| 4. Lens catch lever | 8. Scale transfer lines |

Legend to the diagram

E: Extension. Top row indicates single extension tube or combination of tubes.

Lower row indicates length of extension in **mm** and **inches**
Note that combinations with tube 8 breaks up the data-bus path.

O: Lens type.

R: Degree of magnification

D: Depth-of-field at f/11 in mm

L: Length of square subject area side in mm

EV: Light value reduction (EV-steps)

3

Example 2:

Sonnar FE 2,8/150 mm lens; 150 x 150 mm coverage.

1. Select the lens type in the far l.h. column.
2. Follow the **L** row into the r.h. diagram page to **150**.
3. Read the applicable data from the information in the lens field.

There you have the choice of the combination of tubes 32E and 16E with the lens focused (the red line) **or** the tube 56E with the lens at infinity (the start of blue line)

Magnification **R** = approx. 0.37

Depth-of-field **D** = approx. 15 mm


EV reduction **EV** = 1 step

Attachment:

The extension tube is attached to the camera body in exactly the same way as a lens. Thus you have to verify that the camera is rewound by checking that the winding crank cannot be turned and that the drive shaft is in the proper position (see the camera manual). Also check that the drive shaft in the extension tube is cocked in the same way as a lens drive shaft. Line up the index marks in the lens mount on the camera and on the tube, insert the tube and turn it clockwise until it stops with a faint click as it locks in place.

NOTE: Always attach the tube to the camera body first and then further tubes and finally the lens to the tube.

5

 Coverage by an extension tube or a combination of tubes, defined by the thin vertical line at the left hand end of the heavy blue/red line representing the tube or tube combination. The different colors are used to separate different tubes or tube combinations. The l.h. end of the blue/red line represents the lens focused at infinity, and the length of the line shows the extension obtained by the lens's focusing means. The diagram is continuous but for practical reasons split at the extension of 50 mm.

How to use the diagram

Example 1:

Makro-Planar 4/120mm lens; extension tube 32E.

1. Select the lens type in the far l.h. column.
2. Select the tube or combination of tubes you are using.
3. Follow the thin vertical "tube" line until it crosses the blue/red "lens" line.
4. Read the applicable data from the information in the lens field.

At the line crossing in the lens field you can read:

Magnification **R** = approx. 0.27

Depth-of-field **D** = 25 mm

Area covered **L** = approx. 220 x 220 mm

EV reduction **EV** = 0.5 step

NOTE: The blue line representing the tube 32E continues into the r.h. diagram page.

4

Never attach the tube to the lens separately! It may then jam the lens mechanism.

If more tubes are added they may create vignetting when the extension becomes extreme.

Extension tube 8

Extension Tube 8 cannot be attached to the Hasselblad 200 and 2000 series camera bodies. It can, however, be used as addition if any other tube is attached to the camera body first.

Furthermore, it has no contacts for the data bus in the FE lenses. When used in a Hasselblad metering system it interrupts the data transmission from the lens to the camera body, limiting the functions of the metering system in applicable camera bodies.

Removal:

First depress the lens catch lever on the extension tube and remove the lens. Then remove each tube successively; the last one by depressing the lens catch button on the camera body.

Never remove the lens and tubes together!

NOTE: If a 500-series camera with an extension tube 8 but no lens attached is released and rewound it may occur that neither a lens nor another extension tube can be attached.

Remove the tube 8 and re-attach it and then attach the other equipment as usual.

6

	56	56+8	56+16	56+16+8	56+32	56+32+8	E O
	502	60 2,5	70	3 80	3,5 90	100	
mm 5	0,7	0,8	0,9	1,0	1,1	1,2	R
mm 80	4	3	3	2	2	2	D
		1,5					L
							EV
mm 5	0,7	0,8	0,9	1,0	1,1	1,2	R
mm 80	4	3	3	2	2	2	D
		1,52					L
							EV
mm 7	0,6	0,7	0,8	0,9	1,0		R
mm 100	5	4	3	3			D
		80	60				L
			1,5				EV
mm	0,5	0,6	0,7	0,8			R
mm	7	5	4	4			D
	100	80					L
				1,5			EV
10 mm	0,5	0,6	0,7	0,8			R
125 mm	7	5	4	4			D
1		100	80				L
				1,5			EV
mm	0,4	0,5	0,6				R
mm 150	10	7	5	5			D
	125	100					L
			1,5				EV
mm	0,3	0,4	0,5				R
mm	15	10	7	7			D
1	150	125	100				L
				1,5			EV
mm		0,3	15				R
mm	25	15	150				D
1	200						L
						1,5	EV

