

INSTRUCTIONS FOR



Vivitar **Variable Angle Lens Kit**

For Model 283
Automatic Electronic Flash Unit

The Variable Angle Lens Kit allows you to alter the angle of illumination of your Vivitar 283 Electronic Flash Unit to match the angle of coverage of your camera lens.

The Kit consists of four flash lenses; two wide-angle and two telephoto. Each lens is identified on its tab by the minimum focal length of the camera lens that it can properly be used with, as outlined in the chart below.

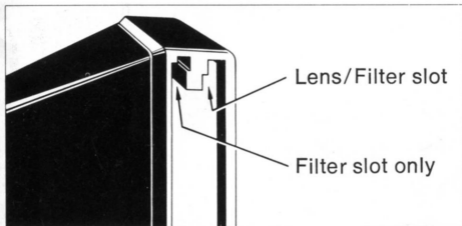
Variable Angle Lens Identification	Recommended for use with camera:
XWA 24mm	Extra-wide-angle lenses; 24–28mm focal lengths
WA 28mm	Wide-angle lenses; 28–35mm focal lengths
Normal—no lens	35–70mm focal lengths
TELE 70mm	Medium telephoto lenses; 70–135mm focal lengths
LONG TELE 135mm	Long telephoto Lenses; 135mm and longer focal lengths

Directions for use

To place a lens in the Lens/Filter Adapter, insert it with the raised side down, into the

upper slot of the Adapter, pushing it all the way in until the "stop" snaps into place.

CAUTION: Do not force the lens as it can only go into the Adapter one way.



Automatic operation

When using a Variable Angle Lens on your 283 Flash Unit in the Automatic Mode, the automatic operating ranges for each of the four automatic f-stop settings change as indicated in the following chart:

Distances in the auto modes

Variable Angle Flash Lens	XWA 24mm	WA 28mm	No-Lens/ NORM	TELE 70mm	TELE L. 135mm
Auto Modes: YELLOW	3'-21' 0.9 m-6.4 m	3'-30' 0.9 m-9 m	3'-43' 0.9 m-13 m	6'-56' 1.8 m-17 m	6'-62' 1.8 m-18.9 m
RED	3'-15' 0.9 m-4.5 m	3'-21' 0.9 m-6.4 m	3'-30' 0.9 m-9 m	6'-39' 1.8 m-11.9 m	6'-43' 1.8 m-13 m
BLUE	2'-7' 0.6 m-2.1 m	2'-10' 0.6 m-3 m	2'-15' 0.6 m-4.5 m	6'-19' 1.8 m-5.8 m	6'-22' 1.8 m-6.4 m
PURPLE	2'-5' 0.6 m-1.5 m	2'-7' 0.6 m-2.1 m	2'-11' 0.6 m-3 m	6'-14' 1.8 m-4.2 m	6'-15' 1.8 m-4.5 m

Manual operation

To take photographs beyond the automatic flash ranges indicated above, or when using multiple flash lighting, set the Mode Selector on the 283 Electronic Flash Sensor to the Manual "M" position. To determine the proper f-stop in the Manual Mode use the following formula: *Guide Number ÷ Distance = f-stop*. (Guide Numbers are provided in the accompanying charts.)

EXAMPLE: (DIN equivalents in parentheses)
Using a 135mm f2 camera lens with 100 ASA (DIN 21) film, the 135mm TELE LENS on the 283 Flash, and your subject 75 feet (23 meters) away, you would find the proper f-stop in this way: Locate **ASA 100 (DIN 21)** on the Guide Numbers chart, look across the row to the "135" column and the Guide Number you find is **174 (53)**; Divide 174 by 75 (53 by 23) (the distance in feet/meters to your subject), and you will arrive at a rounded answer of 2.3. Therefore, set your lens to the nearest f-stop, f2.

Guide numbers (Manual)

ASA	XWA 24	WA 28	Normal	TELE 70	L. TELE 135
25	30	42	60	79	87
64	48	67	96	126	139
80	54	75	108	141	156
100	60	84	120	158	174
125	67	94	135	177	195
160	76	106	150	200	220
200	85	119	170	223	246
320	107	150	215	283	311
400	120	168	240	316	348
800	170	238	340	448	493

DIN	XWA 24	WA 28	Normal	TELE 70	L. TELE 135
15	9	13	18	24	27
19	15	20	29	38	42
20	16	23	32	43	48
21	18	26	36	48	53
22	20	29	40	54	59
23	23	32	45	61	67
24	26	36	51	68	75
26	33	46	66	86	95
27	37	51	72	96	106
30	51	72	100	136	150

To determine the **maximum flash-to-subject distance** in the Manual Mode, divide the Guide Number by the largest camera lens opening of the lens you are using — e.g., a 135mm f2 camera lens has an f2 widest possible opening. Using the 135mm f2 as an example, locate the Guide Number as explained in the previous example, and divide that Guide Number by 2. The resulting answer, in feet for ASA and in meters for DIN, is the maximum effective distance for using your 283 Flash with a particular Variable Angle Lens, film speed, and camera lens.

NOTE: It is a good idea to shoot one or two rolls of film using your 283 Flash with the Variable Angle Lens Kit in order to become familiar with the Kit. This is especially useful in cases when you will wish to shoot in large, open areas, or at the maximum ranges.