





## Introduction

Model 197B is a versatile, general purpose instrument for cathode-ray tube photographic recording. The camera features lift-off mounting and swing-away hinging by pressing a single latch release button. Interchangeable film backs enable capture of CRT display information on a complete spectrum of Polaroid® or conventional sheet, pack, or roll film. All controls are located outside of the camera for easy reading and fast adjustment during setup. A low-angle viewing port provides a direct view of the display through a flexible facemask while the camera is in the photographic position.

A combination split-image focusing plate and image reduction ratio scale is included and is stored in a convenient pocket underneath the camera. The reduction ratio scale provides 1:1, 1:0.9, and 1:0.7 reference settings for displays with one centimetre graticule spacing. Corner marks on the focusing plate allow the usable film area to be accurately identified. The optional Graflok® back is equipped with a ground glass focusing plate and a snap-out viewing hood.

Model 197B camera incorporates an electronically controlled shutter with eight exposure times from 1/30 to 4 seconds. Time (T) and bulb (B) control settings are also provided. The camera lens opening is continuously adjustable from  $f/1.9$  to  $f/16$ . The 75 mm, high transmission lens provides high resolution, low distortion photographs for capturing a wide range of images.

## Camera Mounting

On initial order, the 197B can be configured, with different camera adapters, to directly mount on a variety of instruments as listed in the 197B Camera Compatibility Table. Each camera adapter is attached to the camera body with a piano hinge and is an integral part of the camera. Model 197B includes a 10376A adapter which directly interfaces to HP 1700 series oscilloscopes with 8 x 10 division CRTs. Model 197B Option 002 includes a 10378A adapter which directly interfaces to HP 180 series oscilloscopes. Model 197B Option 006 includes a 10375A adapter which directly interfaces with the majority of HP small screen CRT displays.

By using camera bezel adapters, various camera configurations can be adapted to other instruments not directly compatible with the camera adapter. For mounting a variety of cameras to instruments both current and those no longer in production, refer to the 197B Camera Data Sheet. Copies of the 197B Data Sheet can be obtained from your local HP field office or by writing: Inquires Manager, Hewlett-Packard Company, 1507 Page Mill Road, Palo Alto, California 94304.

## 197B Characteristics

**Reduction ratio:** continuously adjustable from 1:1 to 1:0.7. Reference scale provided on focus plate.

**Lens:** 75 mm,  $f/1.9$  high transmission lens; aperture,  $f/1.9$  to  $f/16$ .

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197B Camera Compatibility				
Instrument	197B	Opt 002	Opt 006	Opt 009
<b>Oscilloscopes</b>				
1200/01/05		X		
1740 Series except 1745A/46A	X			
1745A/46A				X
1715A/22B/25A/27A	X			
180/181		X		
1980			X	
<b>Displays</b>				
1332/33/35/36/40			X (3)	
<b>Network Analyzers</b>				
8412A		X (4)		
8414A		X		
8505A			X (3)	
8754A		(1)		
<b>Signal Analyzers</b>				
140T/180TR		X (2)		
141T/181T/TR		X		
182T		Adv 10367A (2)		
3580A		X		
3582A/85A			X (3)	
3720A/21A		X		
5420A/23A			X (3)	
8565A/66A/68A			X (3)	

## Notes:

1. Model 8754A CRT has P39 phosphor. Ultraviolet light does not excite P39 phosphor and will not illuminate an internal graticule. However, the 197B Opt 002 physically fits on the 8754A.

2. These instruments have P39 phosphor with internal graticule illumination supplied by internal CRT floodguns.

3. These instruments have Lexan CRT facemasks that attenuate ultraviolet light and will not allow illumination of an internal graticule. Instruments with internal floodguns provide internal graticule illumination.

4. Model 8412A CRT has P7 phosphor and the ultraviolet camera light source does not illuminate the phosphor very well, and there is no internal CRT floodgun for graticule illumination.

**Shutter speeds:** 1/30, 1/15, 1/8, 1/4, 1/2, 1, 2, 4 seconds, Time and Bulb; shutter has a sync contact closure output for triggering external equipment and an input jack for remote operation.

**Camera back:** 83 mm x 108 mm (3.25" x 4.25") Polaroid pack back (Graflok back is available, see Options).

**Mounting:** lift on/off mounting with positive lock, swing-away hinging to left.

**Viewing:** low-angle, direct viewing through a flexible facemask.

**Shutter open indicator:** illuminated whenever shutter is open.

**Ultraviolet illumination:** light source and lens filter provide graticule illumination and photographic speed enhancement.

**Focus:** adjustable with lock; split-image focusing plate provided.

**Size:** 267 H x 194 W x 356 mm D (10.5" x 7.6" x 14").

**Weight:** net, 4.5 kg (10 lb); shipping, 7.3 kg (16 lb).

**Power:** switch selectable 115 Vac  $\pm 10\%$  or 230 Vac  $\pm 10\%$ , 48 to 66 Hz\*, 10 VA max.

**Accessories furnished:** comb. split image focusing plate reduction ratio scale, 2.3 m (7.5 ft) power cord, and instruction manual.

## 197B Options & UV Kit

**001:** deletes ultraviolet illumination feature

**002:** replaces 197B adapter with 10378A adapter.

**003:** Graflok back in place of pack back

**006:** replaces 197B adapter with 10375A adapter.

**007:** meets UL listing requirements for medical and dental electronic equipment.

**009:** Camera Bezel Adapter for 1745A

and 1746A oscilloscopes.

**910:** additional manual

**10367A** Camera Bezel Adapter for 182T

**Ultraviolet Light Kit** (P/N 00197-69507) for field installation of ultraviolet illumination feature.

## 197B Camera

\* Camera operates from 48 to 440 Hz, but does not meet the ac line to chassis leakage requirements of UL 544 listing above 66 Hz.