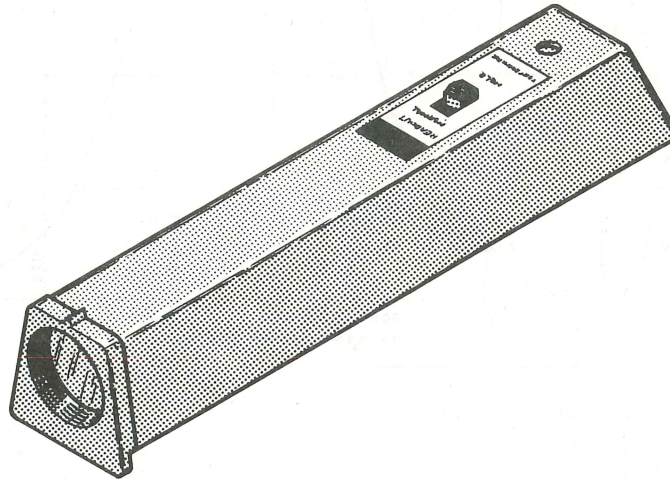


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J6503 LUMINANCE PROBE



The J6503 is designed to measure luminance in foot lamberts where light scattered or emitted by a surface must be measured. Measurements are made with the J6503 pointed at the surface.

The distance from the illuminated surface to the probe can be any amount, providing that the entire 8° field of view is illuminated (see illustration). Underfilling the 8° field will result in low readings. The probe can be brought as close to the illuminated area as desired until shadowing or reflection begin to affect the measurement.

A silicon photodiode and multilayer glass filter are used to very closely match the CIE photopic curve (spectral response of the average human eye; see graph). This assures accurate measurements even when measuring spectrally differing light sources.

The probe has its own factory-set calibration, in foot lamberts. This permits interchangeability of the probes without the need for recalibration of either probes or J16. A HOLD switch is provided to allow the reading to be stored at any time. A standard 0.25"-20 mounting socket is located on the bottom for use in mounting on an optical bench or tripod.

SPECIFICATIONS: (When used with a J16)

Measurement range: 0.1 to 199,900 foot lamberts

Max resolution: 0.01 foot lamberts

Spectral response: CIE photopic curve

Light acceptance angle: 8 degrees (at 12 inches from the front of the probe, the field of view is approximately 3 inches in diameter).

Accuracy: Within 5% of NBS standards and +1 digit in the last place. Probes individually calibrated to a 3100°K tungsten halogen light source traceable to NBS.

NOTE

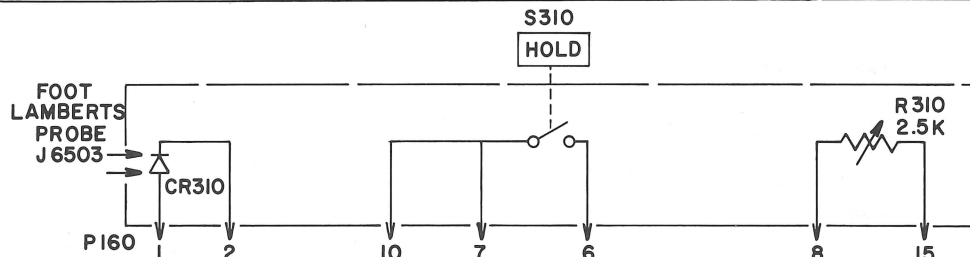
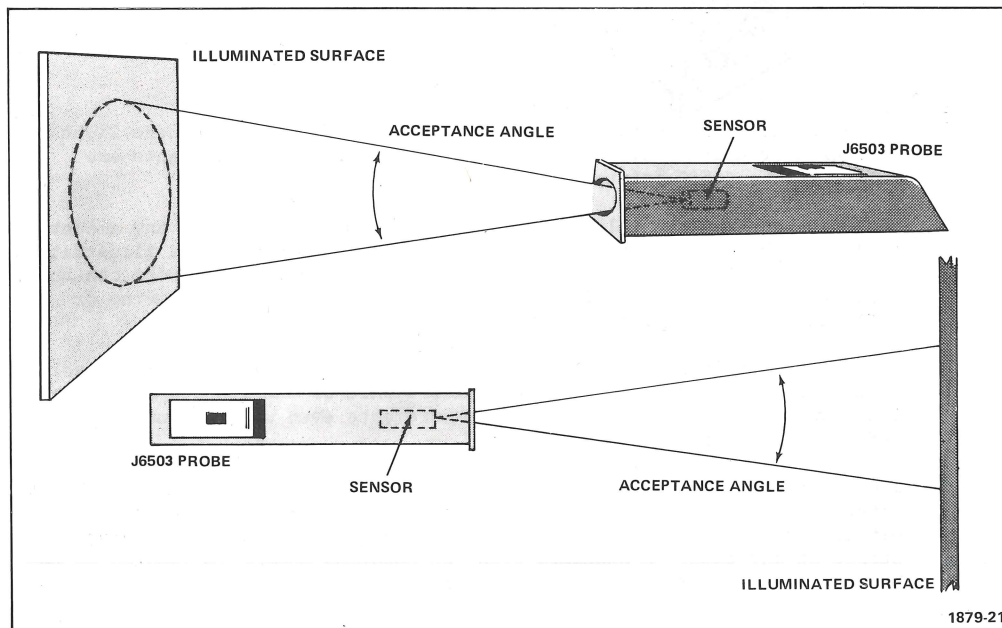
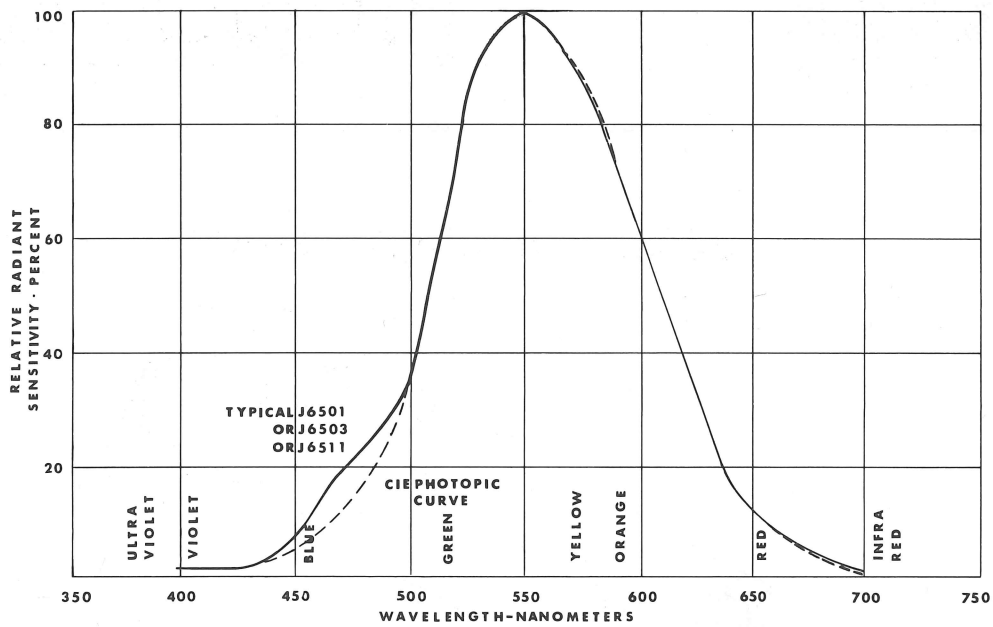
Replacement of any components indicated by an asterisk (*) will require recalibration of the probe. Do not adjust R310 without the use of a standard calibrated light source. See your J16 Instruction Manual for further information.

NO. 062-1534-00

DATE JAN. 1976 (R)

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J6503 PROBE



CROSS INDEX MFR. CODE NUMBER TO MANUFACTURER

MFR.CODE	MANUFACTURER	ADDRESS	CITY,STATE,ZIP
10389	CHICAGO SWITCH, INC.	2035 WABANSIA AVE.	CHICAGO, IL 60647
71785	TRW ELECTRONIC COMPONENTS, CINCH CONNECTOR OPERATIONS	1501 MORSE AVE.	ELK GROVE VILLAGE, IL 60007
73138	BECKMAN INSTRUMENTS, INC., HELIPOT DIV.	2500 HARBOR BLVD.	FULLERTON, CA 92634
73743	FISCHER SPECIAL MFG. CO.	446 MORGAN ST.	CINCINNATI, OH 45206
78189	ILLINOIS TOOL WORKS, INC. SHAKEPROOF DIVISION	ST. CHARLES ROAD	ELGIN, IL 60120
80009	TEKTRONIX, INC.	P. O. BOX 500	BEAVERTON, OR 97077
83385	CENTRAL SCREW CO.	2530 CRESCENT DR.	BROADVIEW, IL 60153

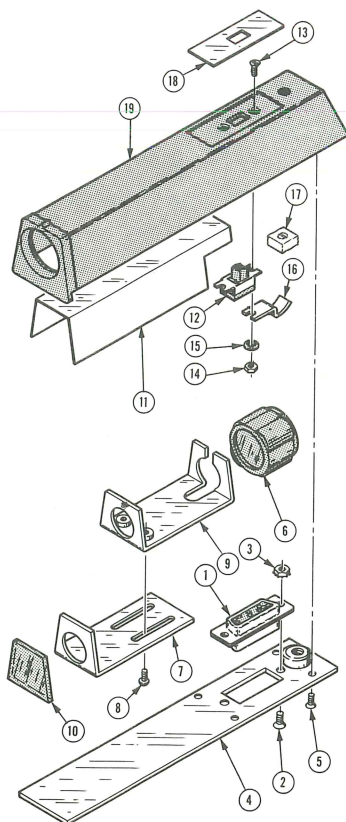


Fig. & Index

Index No.	Tektronix Part No.	Serial/Model No. Eff	Dscont	Qty	1	2	3	4	5	Name & Description	Mfr Code	Mfr Part Number
-1	131-0459-00			1						CONN,RCPT,ELEC:15 PIN MALE,(P160) (ATTACHING PARTS)	71785	DA-15P
-2	211-0101-00			2						SCREW,MACHINE:4-40 X 0.25" 100 DEG,FLH STL	83385	OBD
-3	210-0586-00			2						NUT,PLAIN,EXT W:4-40 X 0.25 INCH,STL	78189	OBD
-4	200-1409-00	B010100	B030664	1						COVER,PROBE:BOTTOM	80009	200-1409-00
	200-1409-02	B030665		1						COVER,PROBE:BOTTOM (ATTACHING PARTS)	80009	200-1409-02
-5	211-0022-00	B010100	B030664	4						SCREW,MACHINE:2-56 X 0.188 INCH,PNH,STL	83385	OBD
	211-0030-00	B030665		4						SCREW,MACHINE:2-56 X 0.25"82 DEG,FLH STL	83385	OBD
-6	152-0549-00*	B010100	B030395	1						SEMICONDC DVC,PH:SI 1%,200V,W/FILTER(CR310)	80009	152-0549-00
	152-0549-02*	B030396		1						SEMICONDC DVC,PH:SI,1%,200V,W/FILTER(CR310)	80009	152-0549-02
-7	343-0380-00			1						CLAMP,TEST PROB:REAR (ATTACHING PARTS)	80009	343-0380-00
-8	211-0022-00			2						SCREW,MACHINE:2-56 X 0.188 INCH,PNH STL	83385	OBD
-9	343-0379-00*			1						CLAMP,TEST PROB:FRONT	80009	343-0379-00
-10	331-0331-00*			1						WINDOW,PROBE:CLEAR	80009	331-0331-00
-11	337-1918-00	XB030420		1						SHIELD,ELEC:ELECTROSTATIC	80009	337-1918-00
-12	260-0960-00			1						SWITCH,SLIDE:2A,120VAC,0.5A,120VDC,(S310) (ATTACHING PARTS)	10389	23-021-006
-13	211-0030-00			2						SCREW,MACHINE:2-56 X 0.25"82 DEG,FLH STL	83385	OBD
-14	210-0405-00			2						NUT,PLAIN,HEX.:2-56 X 0.188 INCH,BRS	73743	2X12157-402
-15	210-0001-00			2						WASHER,LOCK:INTL,0.092 ID X 0.18"OD,STL	78189	1202-00-00-0541C
-16	343-0406-00			1						CLAMP,VAR RES:	80009	343-0406-00
-17	311-1239-00*			1						RES.,VAR,NONWIR:2.5K OHM,10%,0.50W,(R310)	73138	72Y-26-0-252K
-18	334-2010-00			1						MARKER,IDENT:	80009	334-2010-00
-19	380-0298-00	B010100	B030664	1						HSG ASSY,PROBE:TOP	80009	380-0298-00
	380-0298-03	B030665		1						HSG ASSY,PROBE:TOP	80009	380-0298-03
	334-2063-00			1						MARKER,IDENT:"CALIB SEAL"	80009	334-2063-00

