

**Tektronix**<sup>®</sup>  
COMMITTED TO EXCELLENCE

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INFORMATION AT THE REAR  
OF THIS MANUAL.**

**P6007  
PROBE**

Tektronix, Inc.  
P.O. Box 500  
Beaverton, Oregon 97077

070-0388-01  
Product Group 60

INSTRUCTION MANUAL

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#### INSTRUMENT SERIAL NUMBERS

Each instrument has a serial number on a panel insert, tag,  
 or stamped on the chassis. The first number or letter  
 designates the country of manufacture. The last five digits  
 of the serial number are assigned sequentially and are  
 unique to each instrument. Those manufactured in the  
 United States have six unique digits. The country of  
 manufacture is identified as follows:

B000000	Tektronix, Inc., Beaverton, Oregon, USA
100000	Tektronix Guernsey, Ltd., Channel Islands
200000	Tektronix United Kingdom, Ltd., London
300000	Sony/Tektronix, Japan
700000	Tektronix Holland, NV, Heerenveen, The Netherlands

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**Derating Curves**

The derating curves show the maximum continuous-wave voltage that can be applied to the P6007 Probe at higher frequencies. When observing random pulse or combination of dc and ac, the approximate average power should be calculated and should not exceed 1/4 watt. With duty factors less than 0.1, the maximum input voltage can be determined from the following equation and the appropriate derating curve.

Maximum applied voltage at a particular frequency:

$$\frac{\text{Voltage from curve at CW frequency}}{\sqrt{\text{Duty Factor}}}$$

Where: Duty Factor =  $\frac{\text{pulse duration}}{\text{pulse period}}$

For pulse durations longer than 0.1 second, consider the signal as dc.

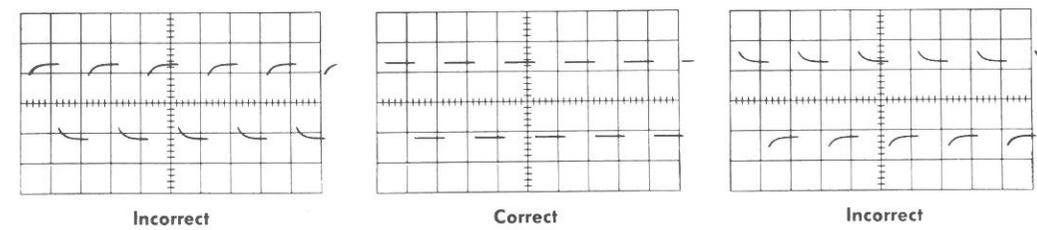
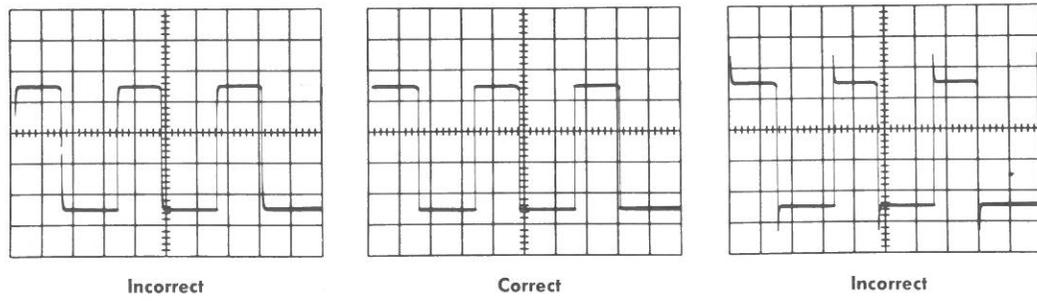
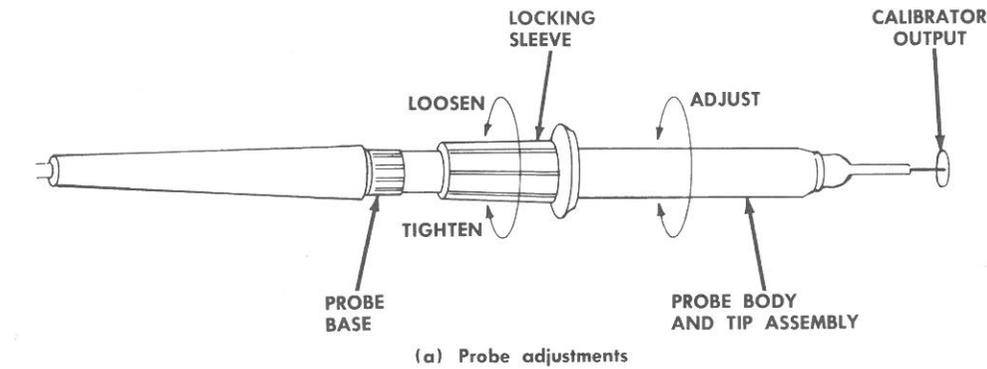


Fig. 1. Probe compensation.

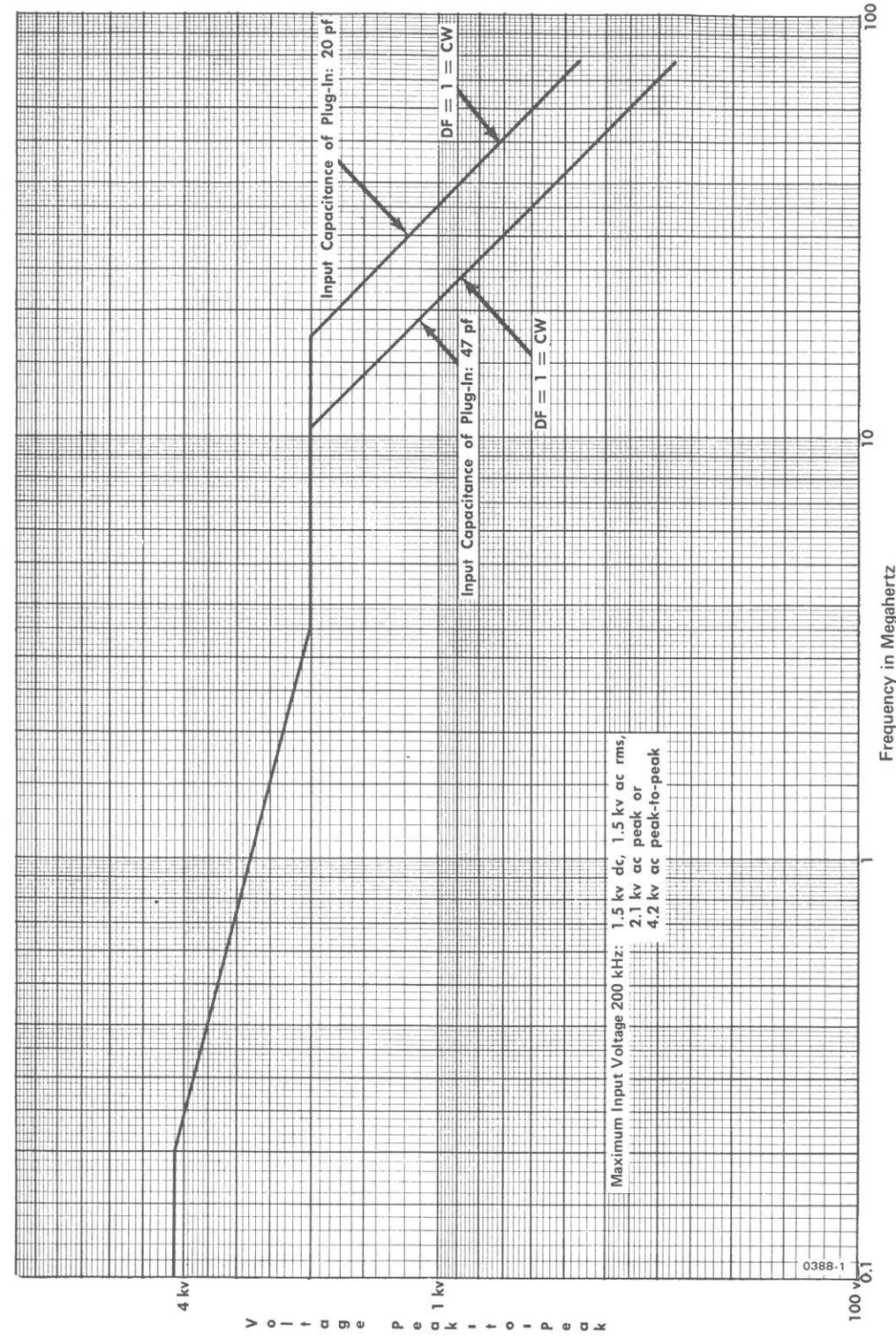


Fig. 2. P6007 derating curves (3.5-ft cable).

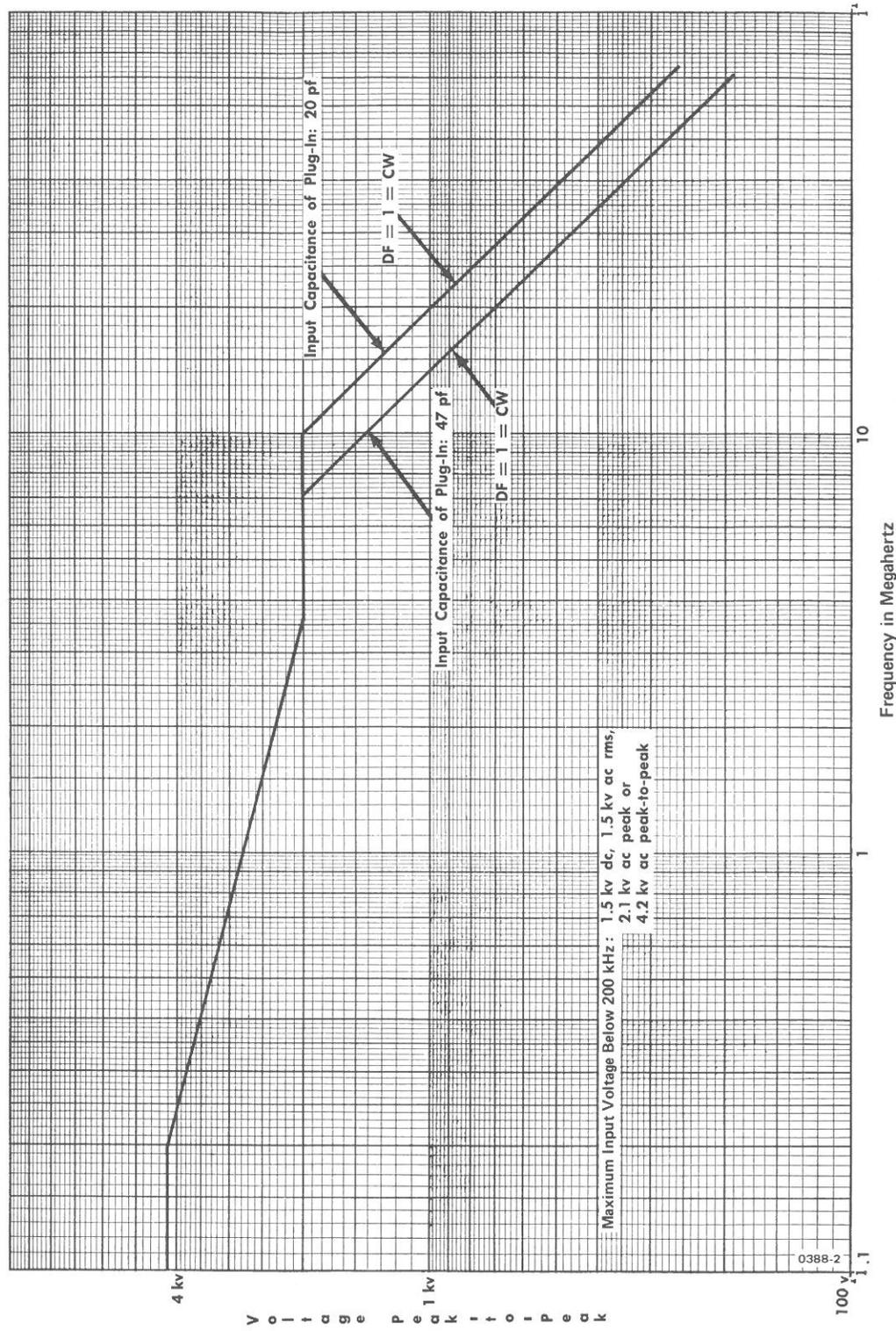


Fig. 3. P6007 derating curves (6-ft cable).

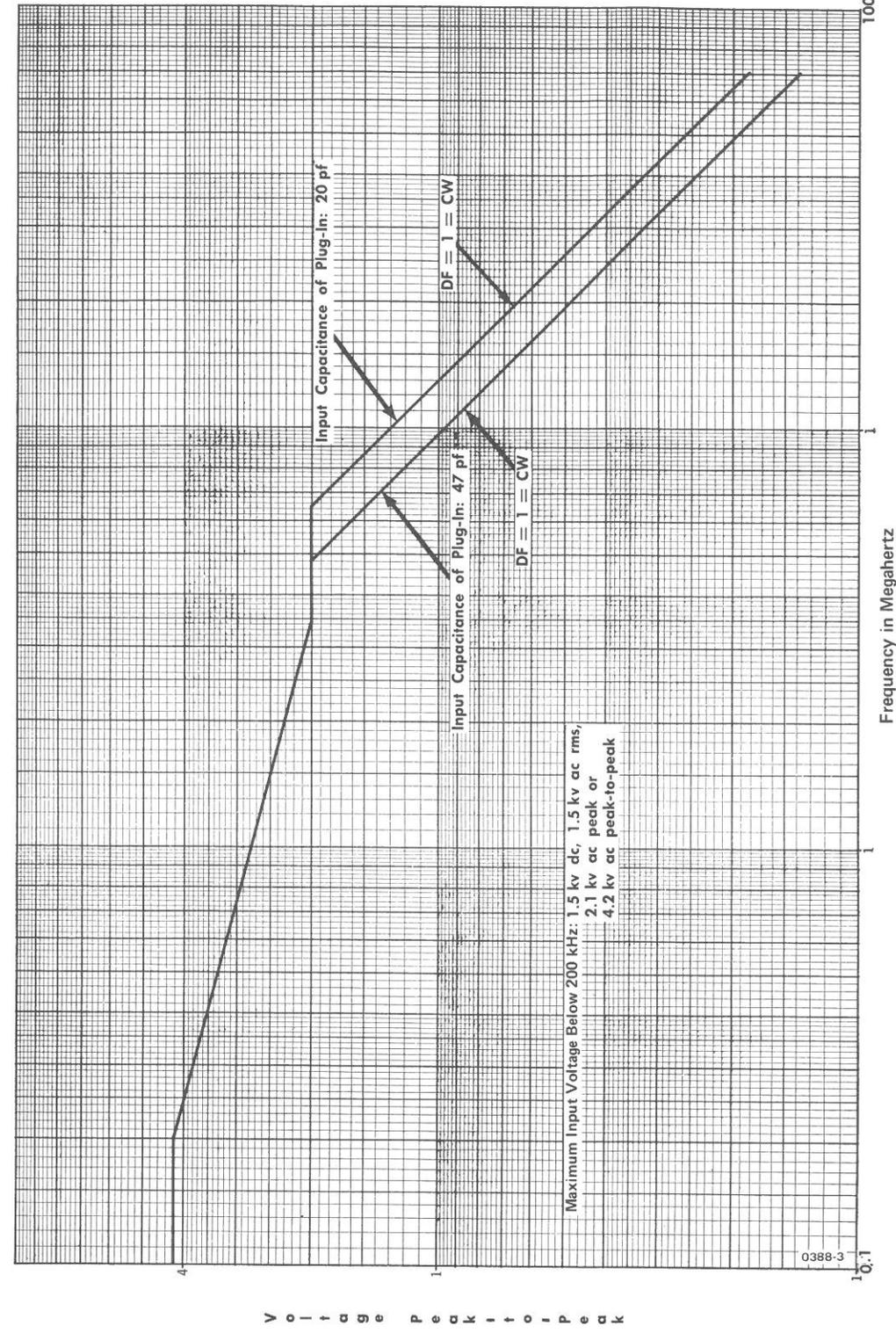


Fig. 4. P6007 derating curves (9-ft cable).

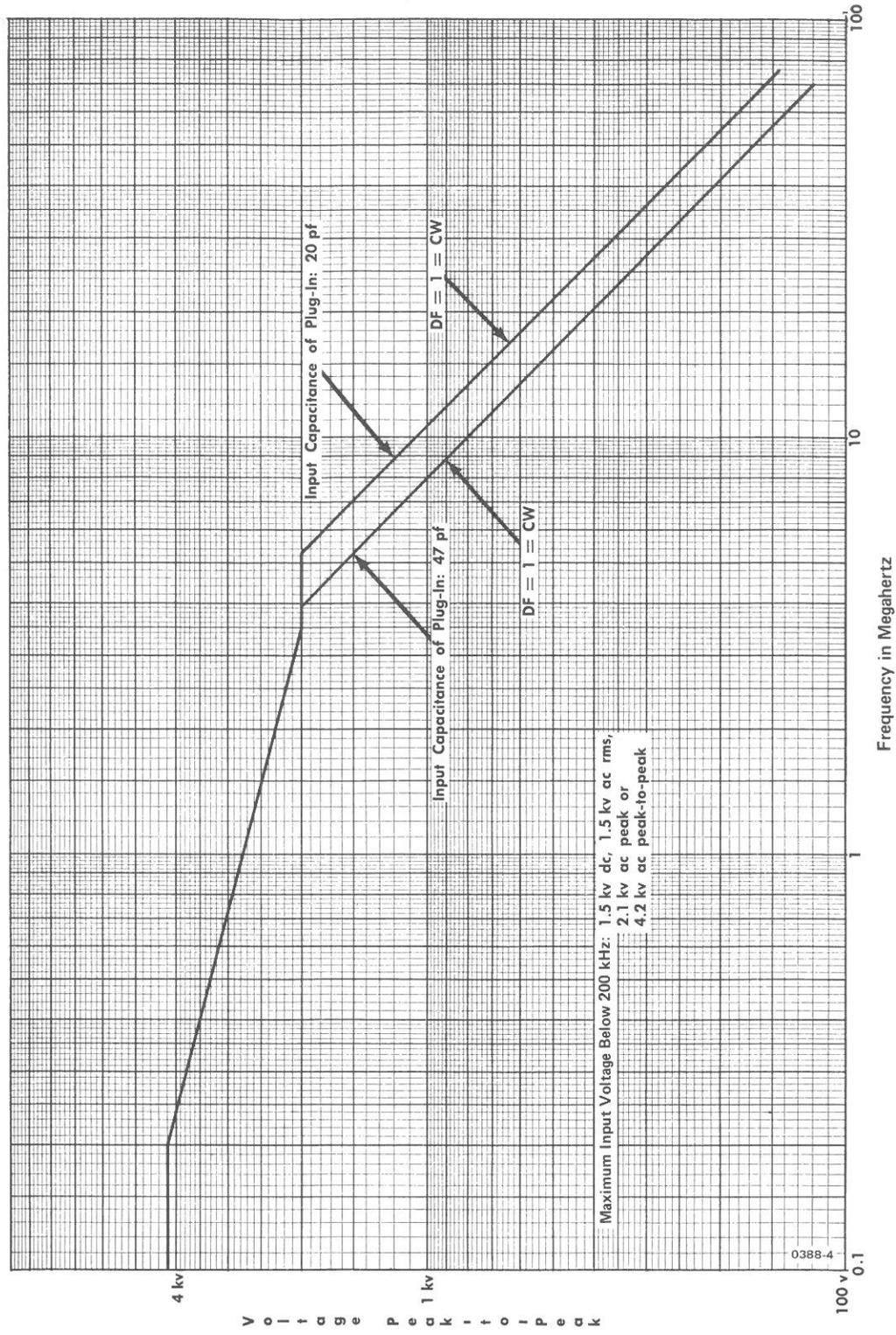


Fig. 5. P6007 derating curves (12-ft cable).

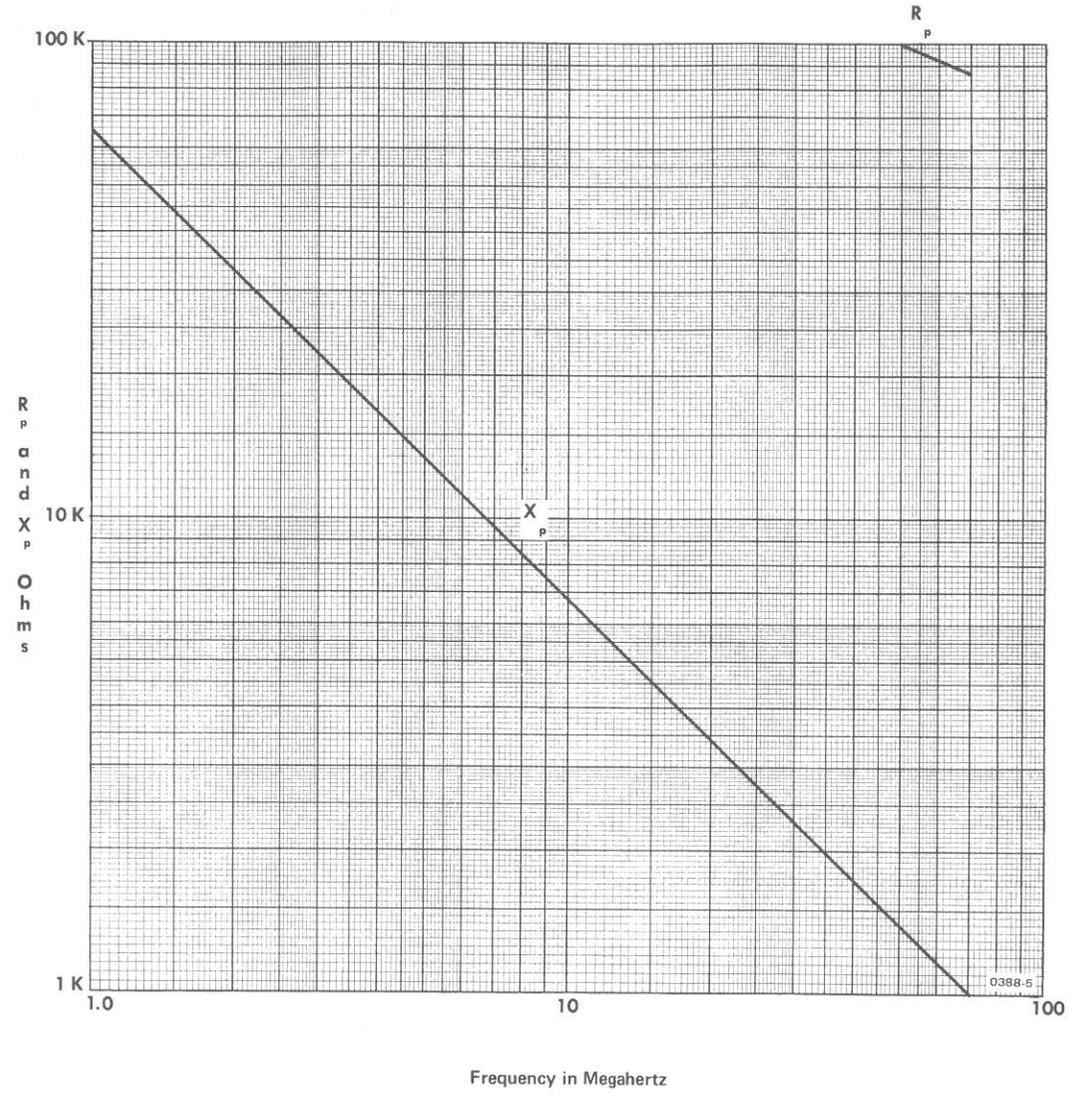


Fig. 6. P6007 input  $R_p$  and  $X_p$  vs frequency curves (3.5-ft cable).

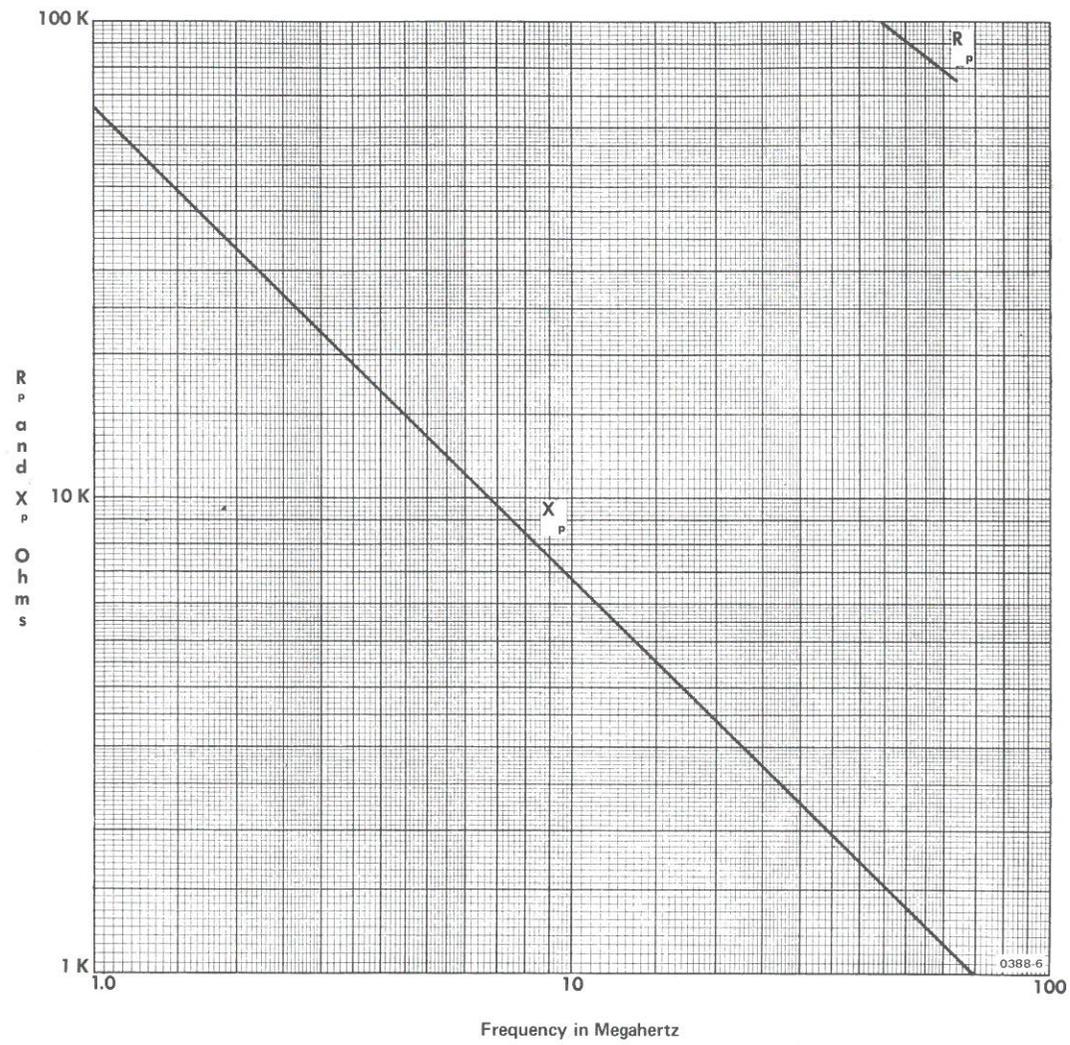


Fig. 7. P6007 input  $R_p$  and  $X_p$  vs frequency curves (6-ft cable).

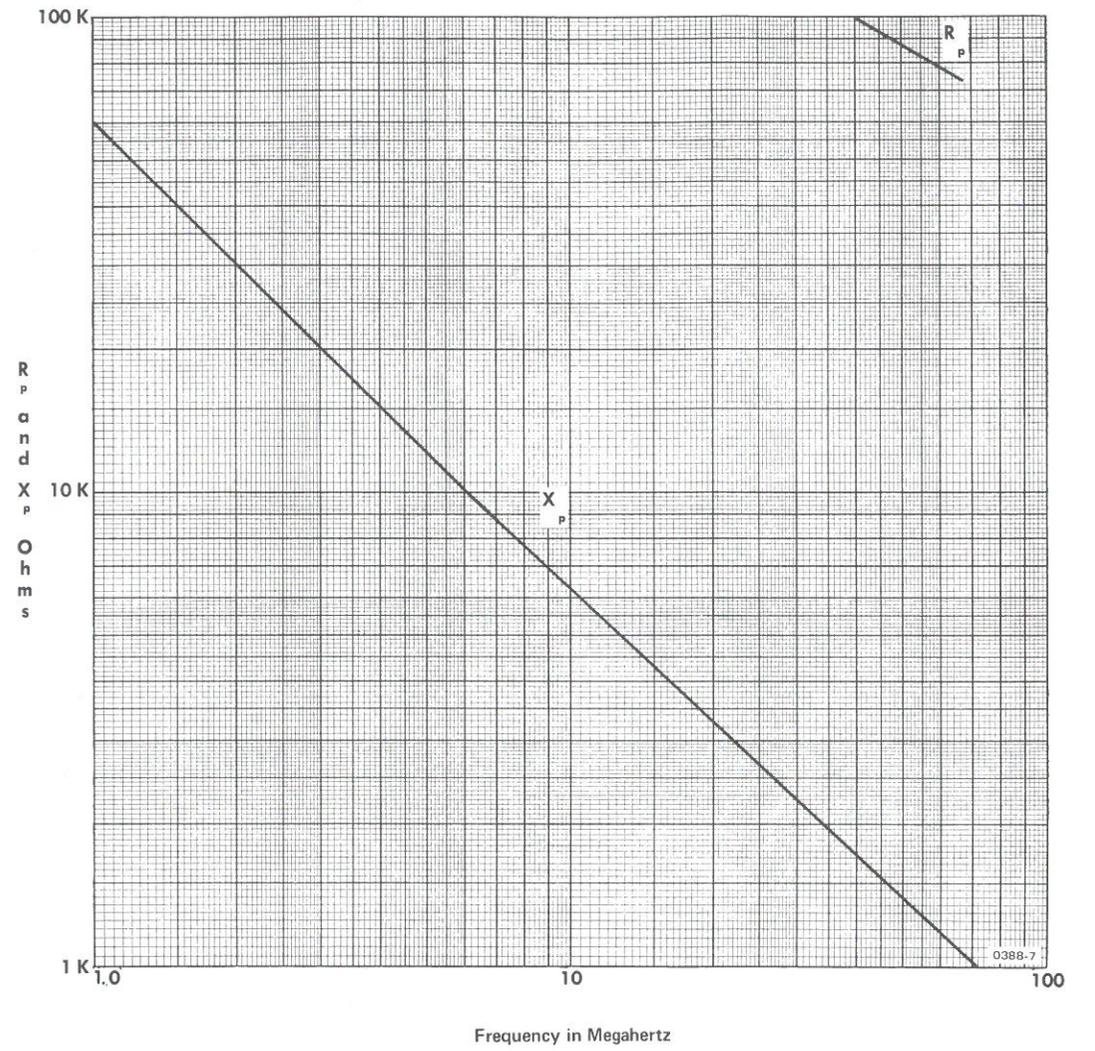


Fig. 8. P6007 input  $R_p$  and  $X_p$  vs frequency curves (9-ft cable).



# REPLACEABLE MECHANICAL PARTS

## PARTS ORDERING INFORMATION

Replacement parts are available from or through your local Tektronix, Inc. Field Office or representative.

Changes to Tektronix instruments are sometimes made to accommodate improved components as they become available, and to give you the benefit of the latest circuit improvements developed in our engineering department. It is therefore important, when ordering parts, to include the following information in your order: Part number, instrument type or number, serial number, and modification number if applicable.

If a part you have ordered has been replaced with a new or improved part, your local Tektronix, Inc. Field Office or representative will contact you concerning any change in part number.

Change information, if any, is located at the rear of this manual.

## ITEM NAME

In the Parts List, an Item Name is separated from the description by a colon (:). Because of space limitations, an Item Name may sometimes appear as incomplete. For further Item Name identification, the U.S. Federal Cataloging Handbook H6-1 can be utilized where possible.

## FIGURE AND INDEX NUMBERS

Items in this section are referenced by figure and index numbers to the illustrations.

## INDENTATION SYSTEM

This mechanical parts list is indented to indicate item relationships. Following is an example of the indentation system used in the description column.

1 2 3 4 5                      *Name & Description*

*Assembly and/or Component*

*Attaching parts for Assembly and/or Component*

.....END ATTACHING PARTS.....

*Detail Part of Assembly and/or Component*

*Attaching parts for Detail Part*

.....END ATTACHING PARTS.....

*Parts of Detail Part*

*Attaching parts for Parts of Detail Part*

.....END ATTACHING PARTS.....

Attaching Parts always appear in the same indentation as the item it mounts, while the detail parts are indented to the right. Indented items are part of, and included with, the next higher indentation.

**Attaching parts must be purchased separately, unless otherwise specified.**

## CROSS INDEX - MFR. CODE NUMBER TO MANUFACTURER

Mfr. Code	Manufacturer	Address	City, State, Zip Code
01121	ALLEN-BRADLEY CO	1201 SOUTH 2ND ST	MILWAUKEE WI 53204
01295	TEXAS INSTRUMENTS INC SEMICONDUCTOR GROUP	13500 N CENTRAL EXPRESSWAY P O BOX 225012 M/S 49	DALLAS TX 75265
02660	BUNKER RAMO CORP AMPHENOL NORTH AMERICA DIV	2801 S 25TH AVE	BROADVIEW IL 60153
19701	MEPCO/ELECTRA INC A NORTH AMERICAN PHILIPS CO	P O BOX 760	MINERAL WELLS TX 76067
24931	SPECIALTY CONNECTOR CO INC	2620 ENDRESS PLACE P O BOX D	GREENWOOD IN 46142
74970	JOHNSON E F CO	299 10TH AVE S W	MASECA MN 56093
80009	TEKTRONIX INC	4900 S W GRIFFITH DR P O BOX 500	BEAVERTON OR 97077

## ABBREVIATIONS

#	INCH	ELCTRN	ELECTRON	IN	INCH	SE	SINGLE END
ACTR	NUMBER SIZE	ELEC	ELECTRICAL	INCAND	INCANDESCENT	SECT	SECTION
ADPTR	ACTUATOR	ELECLT	ELECTROLYTIC	INSUL	INSULATOR	SEMICON	SEMICONDUCTOR
ALIGN	ADAPTER	ELEM	ELEMENT	INTL	INTERNAL	SHLD	SHIELD
AL	ALIGNMENT	EPL	ELECTRICAL PARTS LIST	LPHLDR	LAMPHOLDER	SHLDR	SHOULDERED
AL	ALUMINUM	EQPT	EQUIPMENT	MACH	MACHINE	SKT	SOCKET
ASSEM	ASSEMBLED	EXT	EXTERNAL	MECH	MECHANICAL	SL	SLIDE
ASSY	ASSEMBLY	FIL	FILLISTER HEAD	MTG	MOUNTING	SLFLKG	SELF-LOCKING
ATTN	ATTENUATOR	FLEX	FLEXIBLE	NIP	NIPPLE	SLVG	SLEEVING
AWG	AMERICAN WIRE GAGE	FLH	FLAT HEAD	NON WIRE	NOT WIRE WOUND	SPR	SPRING
BD	BOARD	FLTR	FILTER	OBD	ORDER BY DESCRIPTION	SO	SQUARE
BRKT	BRACKET	FR	FRAME or FRONT	OD	OUTSIDE DIAMETER	SST	STAINLESS STEEL
BRS	BRASS	FSTNR	FASTENER	OVH	OVAL HEAD	STL	STEEL
BRZ	BRONZE	FT	FOOT	PH BRZ	PHOSPHOR BRONZE	SW	SWITCH
BSHG	BUSHING	FXD	FIXED	PL	PLAIN or PLATE	T	TUBE
CAB	CABINET	GSKT	GASKET	PLSTC	PLASTIC	TERM	TERMINAL
CAP	CAPACITOR	HDL	HANDLE	PN	PART NUMBER	THD	THREAD
CER	CERAMIC	HEX	HEXAGON	PNH	PAN HEAD	THK	THICK
CHAS	CHASSIS	HEX HD	HEXAGONAL HEAD	PWR	POWER	TNSN	TENSION
CKT	CIRCUIT	HEX SOC	HEXAGONAL SOCKET	RCPT	RECEPTACLE	TPG	TAPPING
COMP	COMPOSITION	HLCPS	HELICAL COMPRESSION	RES	RESISTOR	TRH	TRUSS HEAD
CONN	CONNECTOR	HLEXT	HELICAL EXTENSION	RGD	RIGID	V	VOLTAGE
COV	COVER	HV	HIGH VOLTAGE	RLF	RELIEF	VAR	VARIABLE
CPLG	COUPLING	IC	INTEGRATED CIRCUIT	RTNR	RETAINER	W/	WITH
CRT	CATHODE RAY TUBE	ID	INSIDE DIAMETER	SCH	SOCKET HEAD	WSHR	WASHER
DEG	DEGREE	IDNT	IDENTIFICATION	SCOPE	OSCILLOSCOPE	XFMR	TRANSFORMER
DWR	DRAWER	IMPLR	IMPELLER	SCR	SCREW	XSTR	TRANSISTOR

Fig. & Index No.	Tektronix Part No.	Serial/Assembly No. Effective Dscont	Qty	12345 Name & Description	Mfr. Code	Mfr. Part No.
1-1				PROBE (STANDARD, OPTS.01,03,04)		
				STANDARD ACCESSORIES		
-2	175-0125-01		1	LEAD,ELEC:STRD,24 AWG,GRAY VINYL,12.0 L	80009	175-0125-01
-3	175-0124-01		1	LEAD,ELEC:STRD,23 AWG,BLK VINYL,5.0 L	80009	175-0124-01
-4	352-0090-00		1	HOLDER,PROBE:DELRIN	80009	352-0090-00
-5	206-0015-00		1	TIP,PROBE:	80009	206-0015-00
-6	134-0013-00		1	PLUG,TIP:BANANA,6-32 INT THD END	74970	108-753-17
-7	206-0105-00		1	TIP,PROBE:HOOK	80009	206-0105-00
-8	206-0060-00		1	TIP,PROBE:	80009	206-0060-00
-9	344-0046-00		2	CLIP,ELEC:ALLIGATOR,1.56 L,STL BRT DIPPED	80009	344-0046-00
-10	013-0071-00		1	TIP,PROBE:RETRACTABLE HOOK	80009	013-0071-00
	131-1098-02		1	CONTACT,ELEC:READOUT GND,CU BE SPR	80009	131-1098-02
	070-0388-01		1	MANUAL,TECH:INSTRUCTION	80009	070-0388-01

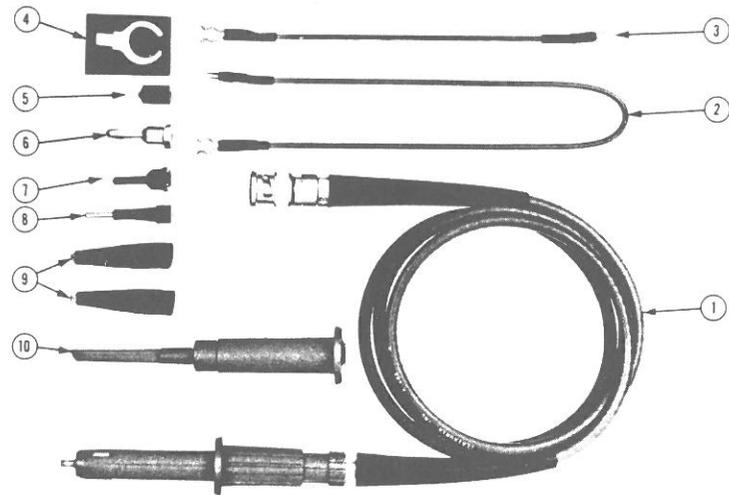


Fig. & Index No.	Tektronix Part No.	Serial/Assembly No. Effective Dscont	Qty	12345 Name & Description	Mfr. Code	Mfr. Part No.
2-				OPTIONS 01,04		
				(SUBPARTS USED ON BOTH PROBES EXCEPT WHERE LISTED)		
-1	134-0044-00		1	.SHELL,ELEC CONN:BNC	02660	31-202-1002
-2	358-0072-00		1	.INSULATOR,BSHG:0.192ID X 0.19200 X 0.323	80009	358-0072-00
-3	214-0109-00		1	.CONTACT,ELEC:CONN CTR CONT	24931	C-1174
-4	361-0022-00		1	.INSULATOR,BSHG:0.29 ID X 0.29 00 X 0.353 L	80009	361-0022-00
-5	175-0272-00		1	.CABLE ASSY,RF:83 OHM COAX,44.0 L (OPTION 01 ONLY)	80009	175-0272-00
	175-0283-00		1	.CABLE ASSY,RF:50 OHM COAX,144.0 L (OPTION 04 ONLY)	80009	175-0283-00
-6	204-0192-00		1	.BODY ASSY,PROBE: (OPTION 01 ONLY)	80009	204-0192-00
	204-0195-00		1	.BODY ASSY,PROBE: (OPTION 04 ONLY)	80009	204-0195-00
-7	166-0285-00		1	.SLEEVE,LOCKING:	80009	166-0285-00
-8	166-0349-00		1	.SLEEVE,PROBE:0.169ID X 0.2400 X 1.25L,SST	80009	166-0349-00
-9	358-0194-00		1	.BUSHING,PROBE:GRAY ABS	80009	358-0194-00
-10	358-0192-00		1	.BUSHING,PROBE:10-32 EXT THD X 0.300X1.66L	80009	358-0192-00

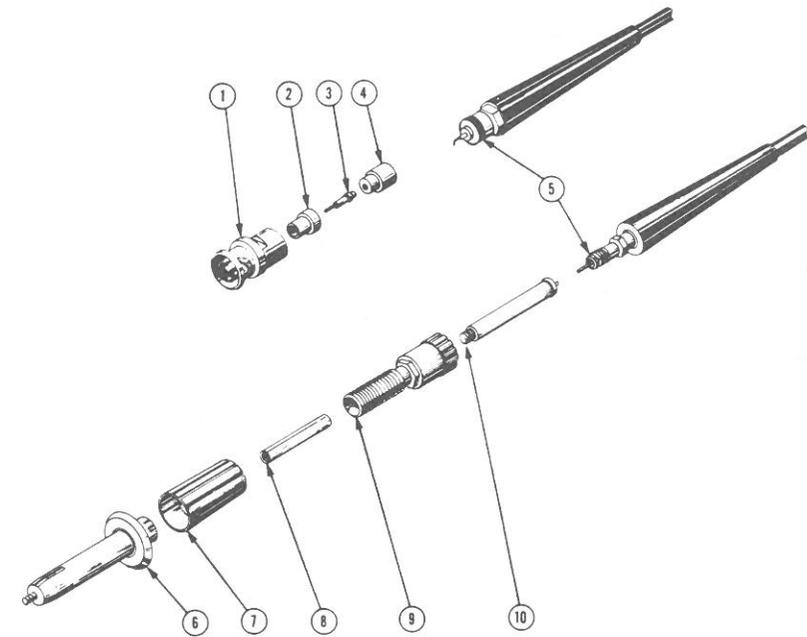
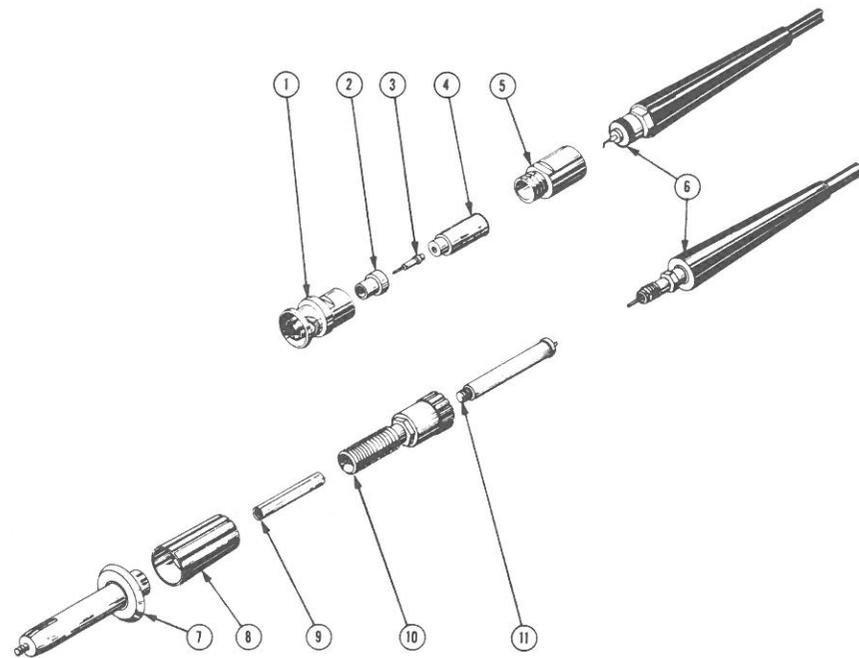
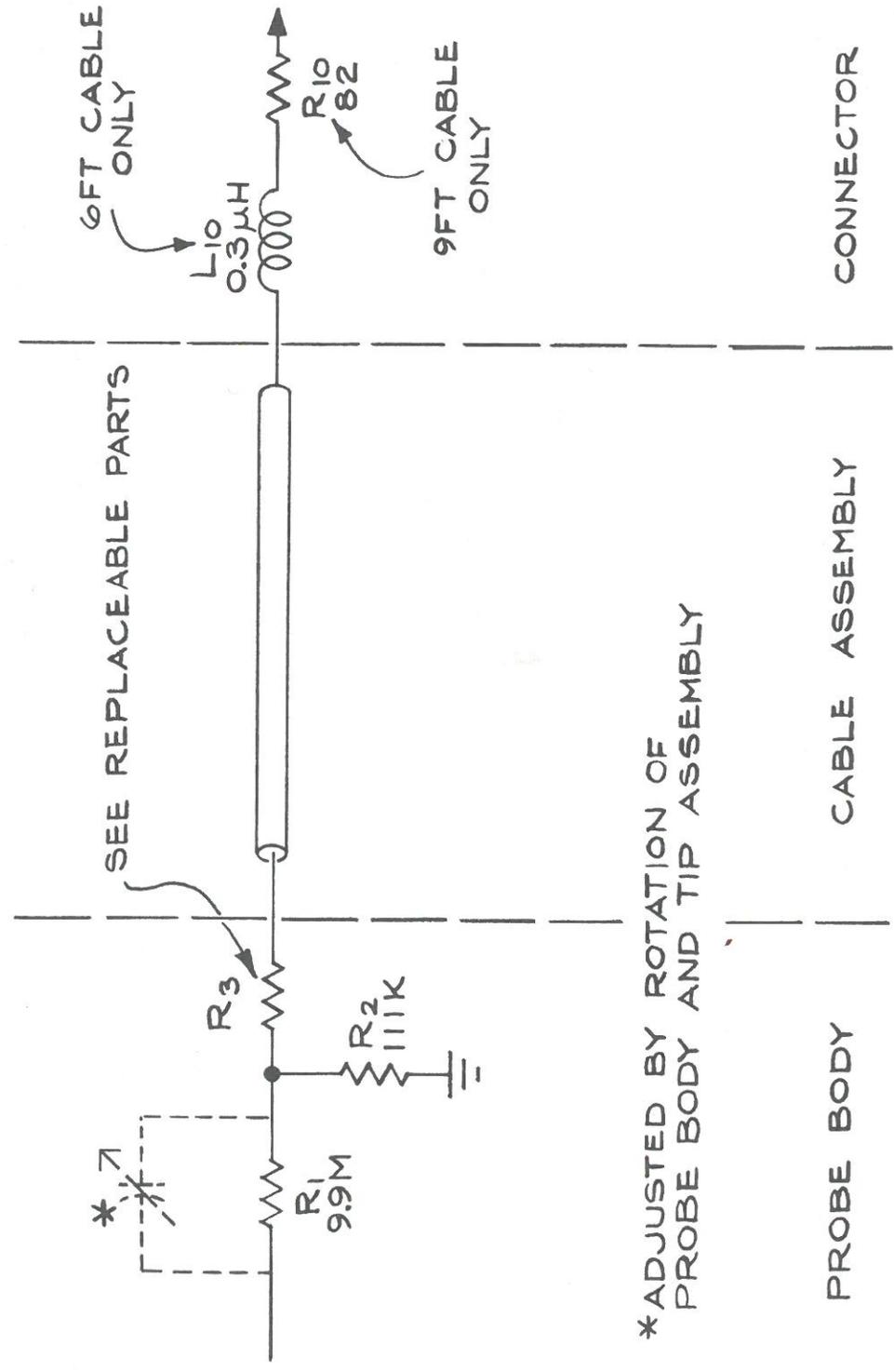


Fig. & Index No.	Tektronix Part No.	Serial/Assembly No. Effective Dscont	Qty	12345 Name & Description	Mfr. Code	Mfr. Part No.
3-				STANDARD AND OPTION 03		
				(SUBPARTS USED ON BOTH PROBES EXCEPT WHERE LISTED)		
-1	134-0044-00		1	.SHELL,ELEC CONN:BNC	02660	31-202-1002
-2	358-0072-00		1	.INSULATOR,BSHG:0.19210 X 0.19200 X 0.323	80009	358-0072-00
-3	214-0109-00		1	.CONTACT,ELEC:CONN CTR CONT	24931	C-1174
-4	166-0326-00		1	.SLEEVE,ADAPTER:0.312 DIA X 0.977 L,PP	80009	166-0326-00
-5	131-0270-00		1	.ADAPTER,CONN:UHF TO BNC	80009	131-0270-00
-6	175-0279-00		1	.CABLE ASSY,RF:83 OHM COAX,72.0 L	80009	175-0279-00
	175-0280-00		1	.(STANDARD ONLY) .CABLE ASSY,RF:50 OHM COAX,108.0 L	80009	175-0280-00
-7	204-0193-00		1	.(OPTION 03 ONLY) .BODY ASSY,PROBE:	80009	204-0193-00
	204-0194-00		1	.(STANDARD ONLY) .BODY ASSY,PROBE:	80009	204-0194-00
-8	166-0285-00		1	.(OPTION 03 ONLY) .SLEEVE,LOCKING:	80009	166-0285-00
-9	166-0349-00		1	.SLEEVE,PROBE:0.16910 X 0.2400 X 1.25L,SST	80009	166-0349-00
-10	358-0194-00		1	.BUSHING,PROBE:GRAY ABS	80009	358-0194-00
-11	358-0192-00		1	.BUSHING,PROBE:10-32 EXT THD X 0.300X1.66L	80009	358-0192-00



Component No.	Tektronix Part No.	Serial/Assembly No. Effective Dscont	Name & Description	Mfr. Code	Mfr. Part No.
A1	-----		PROBE,VOLTAGE:P6007,42.0 L,100X,P ONLY (OPT. 01)		
A1C1	-----		(PART OF PROBE BODY)		
A1R1	-----		(PART OF PROBE BODY)		
A1R2	318-0006-00		RES,FXD,FILM:111K OHM,1%,0.125M	01295	CD1-8R1113F
A1R3	302-0391-00		RES,FXD,CMPSN:390 OHM,10%,0.50M	01121	EB 3911
A2	-----		PROBE,VOLTAGE:P6007,72.0 L,100X,P ONLY (STANDARD)		
A2C1	-----		(PART OF PROBE BODY)		
A2L10	108-0182-00		COIL,RF:FIXED,285NH	80009	108-0182-00
A2R1	-----		(PART OF PROBE BODY)		
A2R2	318-0006-00		RES,FXD,FILM:111K OHM,1%,0.125M	01295	CD1-8R1113F
A2R3	301-0431-00		RES,FXD,FILM:430 OHM,5%,0.5M	19701	5053CX430R0J
A3	-----		PROBE,VOLTAGE:P6007,108.0 L,100X,P ONLY (OPT. 03)		
A3C1	-----		(PART OF PROBE BODY)		
A3R1	-----		(PART OF PROBE BODY)		
A3R2	318-0006-00		RES,FXD,FILM:111K OHM,1%,0.125M	01295	CD1-8R1113F
A3R3	302-0681-00		RES,FXD,CMPSN:680 OHM,10%,0.5M	01121	EB 6811
A3R10	302-0820-00		RES,FXD,CMPSN:82 OHM,10%,0.50M	01121	EB 8201
A4	-----		PROBE,VOLTAGE:P6007,144.0 L,100X,P ONLY (OPT. 04)		
A4C1	-----		(PART OF PROBE BODY)		
A4R1	-----		(PART OF PROBE BODY)		
A4R2	318-0006-00		RES,FXD,FILM:111K OHM,1%,0.125M	01295	CD1-8R1113F
A4R3	302-0561-00		RES,FXD,CMPSN:560 OHM,10%,0.50M	01121	EB 5611



\* ADJUSTED BY ROTATION OF PROBE BODY AND TIP ASSEMBLY

P6007

A1