



Tektronix P6011 Passive Probe Instruction Manual

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Tektronix P6011 Passive Probe



WARRANTY

All Tektronix instruments are warranted against defective materials and workmanship for one year. Tektronix transformers, manufactured in our own plant, are warranted for the life of the instrument.

Any questions with respect to the warranty mentioned above should be taken up with your Tektronix Field Engineer.

Tektronix repair and replacement-part service is geared directly to the field, therefore all requests for repairs and replacement parts should be directed to the Tektronix Field Office or Representative in your area. This procedure will assure you the fastest possible service. Please include the instrument Type and Serial number with all requests for parts or service. Specifications and price change privileges reserved.

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P6011 PROBE SECTION 1

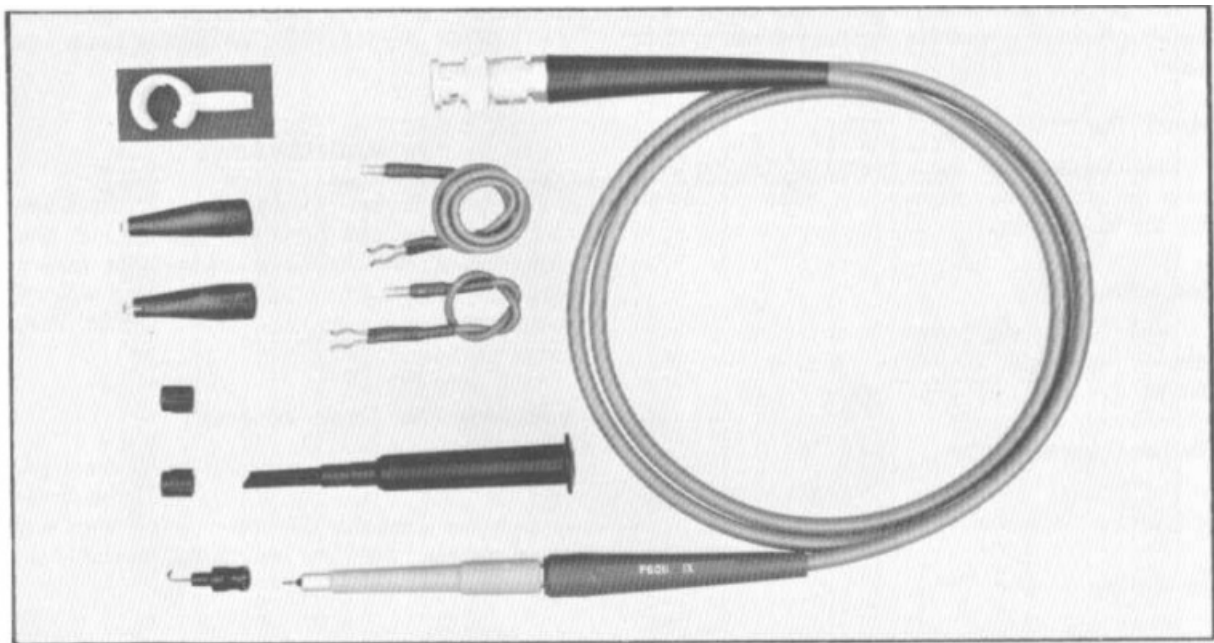


Fig. 1-1. The P6011 Probe with standard accessories.

GENERAL INFORMATION

The P6011 is a passive I X probe with a small diameter probe body for easy access to test points of compact circuitry.

The probe consists of a probe body assembly and a cable with a BNC connector. The cable is available in 3.5-foot, 6-foot, and 9-foot lengths.

CHARACTERISTICS

Input Capacitance

At 140 kHz the input capacitance of the 3.5-foot cable is 28 pF, the 6-foot cable is 48 pF, and the 9-foot cable is 75 pF.

Voltage Rating

The maximum DC, AC peak, or DC and AC peak combined input voltage is 600 V. See Fig. 1-2 for derating curves.

Risetime

The risetime of the probe alone, when driven by a 25-ohm source is listed in Table 1-1.

TABLE 1-1

Probe Length	Instrument Input Capacitance	
	15 pF	20 pF
3.5 foot	≤ 12 ns	≤ 15 ns
6 foot	≤ 15 ns	≤ 17 ns
9 foot	≤ 23 ns	≤ 25 ns

Connecting Cable

The cable is made with a special resin, solve center which provides critical damping of reflections.

Environmental Capability

The probe will operate normally at temperatures to 75 ° C.

OPTIONAL ACCESSORIES

Tektronix

- Part No. Description
- 013-0084-00 BNC to Probe Adapter
- 017-0076-00 GR to Probe Adapter
- 131 -0258-00 Test Point Jack
- 175-0249-00 3 in. Ground Clip
- 175-0236-00 3 in. Ground Lead

USE OF ACCESSORIES

Pincher Tip

The pincher tip, which slides onto the probe body, provides a positive connection to a test point.

Hook Tip

The hook tip provides a means of holding onto a test point when there is not adequate room for the pincher tip.

Insulating Tube

When using the probe without one of the above tips, place an insulating tube over the tip of the probe to avoid short circuits.

Ground Lead

The ground lead clips to the probe between the probe body and the cable assembly.

Insulating Sleeve

When the ground lead is connected to the probe, place the insulating sleeve over the exposed connection to avoid short circuits.

Miniature Alligator Clip

The insulated alligator clip screws onto the ground lead

Probe Holder

The probe holder provides a convenient means of storing the probe when not in use. After connecting the probe to the instrument being used, place the wide half of the probe holder around the cable and slide onto the tapered portion of the cable assembly near the BNC connector. When the probe is not in use, place the tapered portion near the probe body into the holder.

MAINTENANCE

The P6011 Probe is designed to withstand normal operation and handling and should give many hours of continuous use without failure.

However, if the probe fails or breaks, replacement parts are available. See Mechanical Parts List in Section 2.

Replacing the Cable Assembly

If the coaxial cable between the probe body and the BNC connector should fail, the cable assembly is available complete with fittings and cable reliefs. Replace the cable assembly as follows:

1. Unscrew the BNC plug, using two 7/16 in. wrenches.
2. Unsolder the contact pin.
3. Remove the spacer insulator.
4. Unscrew the probe body and sleeve assembly from the other end of the cable assembly.
5. Unsolder the male plug from the cable.
6. Install the new cable assembly by reversing the above procedure.

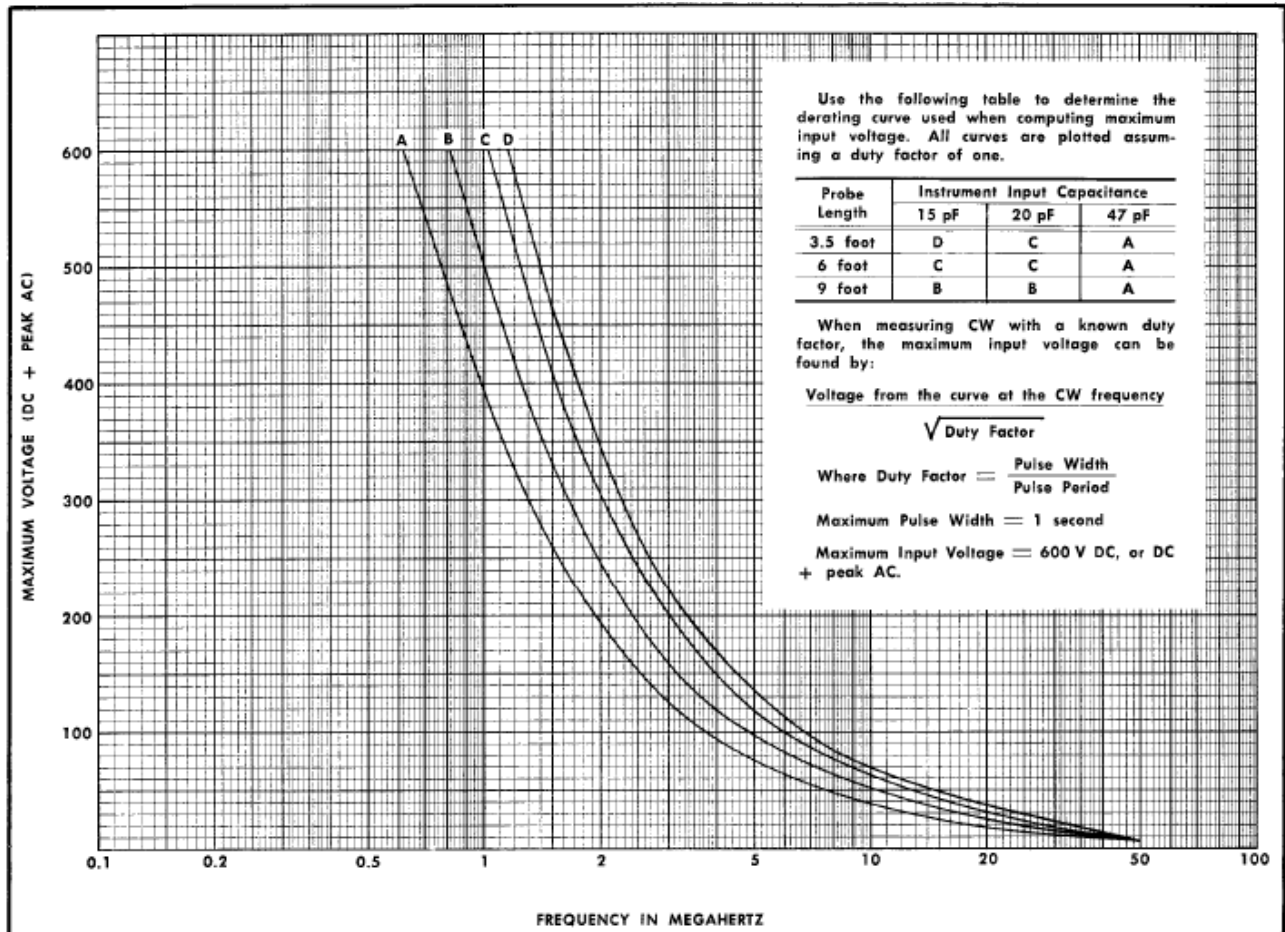


Fig. 1-2. P6011 input voltage derating curves.

PARTS 11ST SECTION 2

PARTS ORDERING INFORMATION

Replacement ports are available from or through your local Tektronix Field Office.

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 ports, to include the following information in your order: Port number including any suffix, instrument type, serial number, and modification number if applicable.

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

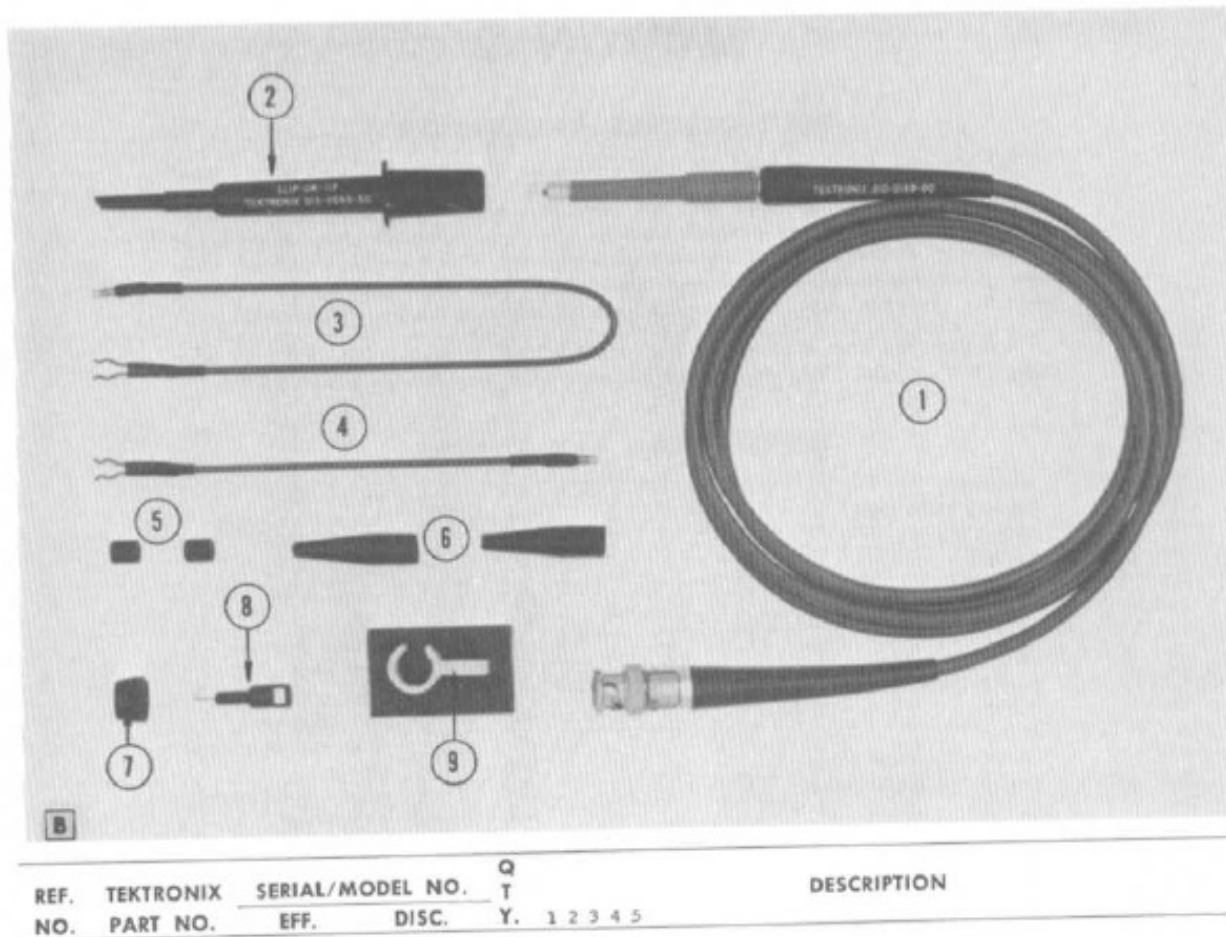
ABBREVIATIONS AND SYMBOLS

a or amp	amperes	mm	millimeter
BHS	binding head steel	meg or M	megohms or mega (10^6)
C	carbon	met.	metal
cer	ceramic	μ	micro, or 10^{-6}
cm	centimeter	n	nano, or 10^{-9}
comp	composition	Ω	ohm
cps	cycles per second	OD	outside diameter
crt	cathode-ray tube	OHS	oval head steel
CSK	counter sunk	p	pico, or 10^{-12}
dia	diameter	PHS	pan head steel
div	division	piv	peak inverse voltage
EMC	electrolytic, metal cased	plstc	plastic
EMT	electrolytic, metal tubular	PMC	paper, metal cased
ext	external	poly	polystyrene
f	farad	Prec	precision
F & I	focus and intensity	PT	paper tubular
FHS	flat head steel	PTM	paper or plastic, tubular, molded
Fil HS	fillister head steel	RHS	round head steel
g or G	giga, or 10^9	rms	root mean square
Ge	germanium	sec	second
GMV	guaranteed minimum value	Si	silicon
h	henry	S/N	serial number
hex	hexagonal	t or T	tera, or 10^{12}
HHS	hex head steel	TD	toroid
HSS	hex socket steel	THS	truss head steel
HV	high voltage	tub.	tubular
ID	inside diameter	v or V	volt
incd	incandescent	Var	variable
int	internal	w	watt
k or K	kilohms or kilo (10^3)	w/	with
kc	kilocycle	w/o	without
m	milli, or 10^{-3}	WW	wire-wound
mc	megacycle		

SPECIAL NOTES AND SYMBOLS

- xooo Port first added at this serial number.
- ooox. Port removed after this serial number.
- 000-000 Asterisk preceding Tektronix Port Number indicates manufactured by or for Tektronix, or reworked or checked components.
- Use 000-000 Port number indicated is direct replacement.
- Internal screwdriver adjustment.
- Front-panel adjustment or connector.

PROBE and STANDARD ACCESSORIES



PROBE PACKAGE

PROBE PACKAGE

- 1-9 010-0193-00 PROBE PACKAGE, P6011, 3.5 foot
 - 010-0190-00 PROBE PACKAGE, P6011, 6 foot
 - 010-0229-00 PROBE PACKAGE, P6011, 9 foot
- package includes:

PROBE ONLY

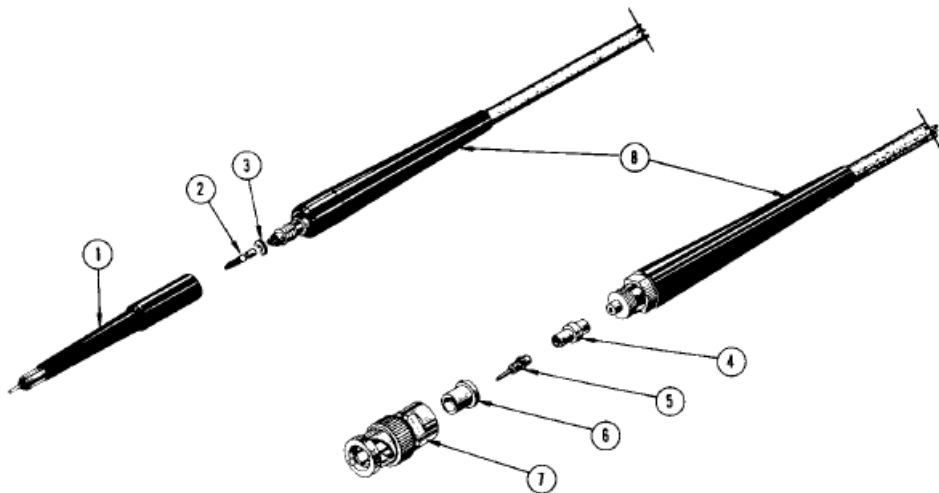
- 1 010-0192 00 PROBE, P601 I, 3.S foot
- 010-0189-00 PROBE, P601 I, 6 fool
- 010-0228-00 PRO BE, P601 I, 9 fool

STANDARD ACCESSORIES

- 2 013-0090-00 HOOK TIP, retractable
- 3 175-012S-00 CABLE, ground lead, 12 inch
- 4 175-0124-00 CABLE, ground lead 5 inch
- 5 I 66-0404-00 TUBE, insulating, molded
- 6 ~4-0046'00 CLIP, probe
- 7 166-0433-00 X67.46 7009 SLEEVE, insulating, gnu , trip

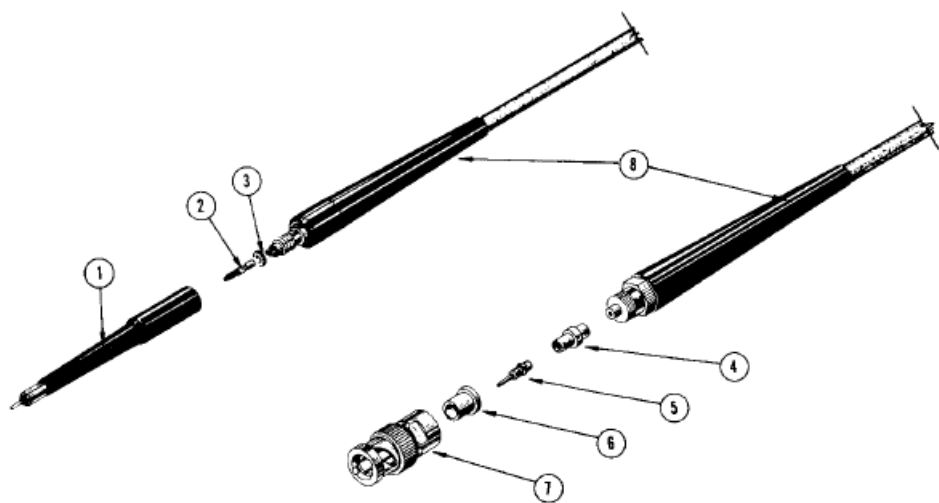
- 166-0433-01 7010 TUBE, ,nsulalrng, molded
- 8 206-0114•00 TIP, probe
- 9 352-0090-00 2-2 HOLDER, probe
- 006-03S1 -00 BAG, plo111c, 4 x 6 in, he, (not shown)
- 070-0512-01 MANUAL, instruction !not shown)
- 367-0105-00 X6926 HANDLE, hook hop !not shown)

REPLACEABLE PARTS (3.5 foot)



REF. NO.	TEKTRONIX PART NO.	SERIAL/ MODEL NO.		T Y.	DESCRIPTION 1 2 3 4 s
		EFF.	DISC.		
1	010-0192-00 ----- 204-0252-01				PROBE, P601 I, 3.5 foot probe includes: ASSEMBLY, body and sleeve
2	214-0592-00				PLUG, male
3	210-0997-00				WASHER, guide
4	361-0022-00				SPACER
5	214-0109-01				PI N, contact
6	358-0072-00				BUSH I NG, insulator
7	134-0044-00				PLUG, probe
8	175-0337-03				CABLE, ASSEMBLY, 3.5 foot
	200-0372-00				CAP, plastic protective (not shown)
	015-0201-00				ADAPTER, probe tip, IC test (not shown)

REPLACEABLE PARTS (6 foot)

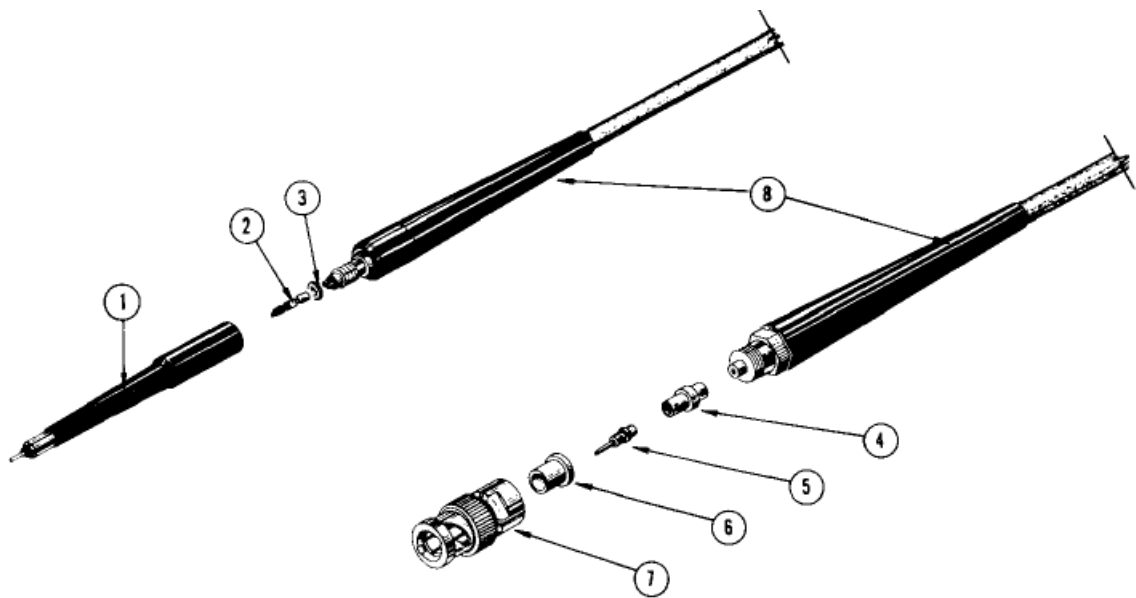


REF. TEKTRONIX NO. PART NO.
SERIAL/ MODEL NO. EFF. DISC.

DESCRIPTION

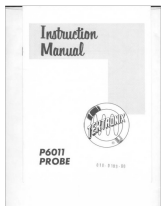
1	010-0189-00 ----- 204-0252-01	PROBE, P6011, 6 foot probe includes, ASSEMBLY, body and sleeve
2	214-0592-00	PLUG, male
3	21 0-0997-00	WASHER, guide
4	361-0022-00	SPACER
5	214-0109-01	PIN, contact
6	358-0072-00	BUSHING, insulator
7	134-0044-00	PLUG, probe
8	175-0337-02	CABLE ASSEMBLY, 6 foot
	200-0372-00	CAP, plastic, protective (not shown)
	015-0201-00	ADAPTER, probe tip, IC test (not shown)

REPLACEABLE PARTS 19 foot}



RE F. N O.	TEKTRONI X PART NO .	<u>SERIAL/ MODEL</u> NO. EFF. DISC.	Q T Y.	DESCRIPTION 1 2 3 4 s
	010-0228-0 0 ----- 1 204-0252 -01			PROBE, P6011, 9 foot probe includes, ASSEMBLY, body and sleeve
	2 214-0592 -00			PLUG, male
	3 210-0997 -00			WASHER, guide
	4 361-0022 -00			SPACER
	5 214-0109 -01			PIN, contact
	6 358-0072 -00			BUSHING, insulator
	7 134-0044 -00			PLUG, probe
	8 175-0471 -00			CABLE ASSEMBLY, 9 foot
	200-0372-0 0			CAP, plastic, protective (not shown)
	015-0201-0 0			ADAPTER, probe tip, IC test [not shown]

Documents / Resources

	Tektronix P6011 Passive Probe [pdf] Instruction Manual P6011, Passive Probe, P6011 Passive Probe, Probe
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