Instruction Manual

Tektronix

P6105A 10X Passive Probe DC To 100 MHz 070-5231-00

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SAFETY SUMMARY

The general safety information in this summary is for both operating and servicing personnel. Specific warnings and cautions will be found throughout the manual where they apply and do not appear in this summary.

Terms in This Manual

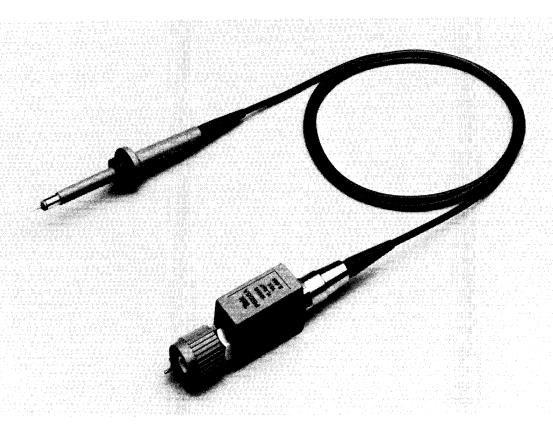
WARNING statements identify conditions or practices that could result in personal injury or loss of life.

CAUTION statements identify conditions or practices that could result in damage to the equipment or other property.

Do Not Operate in Explosive Atmospheres

To avoid explosion, do not operate this product in an explosive atmosphere unless it has been specifically certified for such operation.

P6105A iii



5231-01

The P6105A Probe.

iv P6105A

SPECIFICATIONS

DESCRIPTION

The TEKTRONIX P6105A is a miniature, 10X passive probe for use with dc to 100 MHz oscilloscopes with an input capacitance range of 15 to 35 pF and an input resistance of 1 M Ω .

A coding pin on the BNC output connector activates the volts/division readout encoding circuit of the oscilloscope to include the 10X attenuation of the probe. The compensation box houses a network that provides optimum transient response. The probe can be low-frequency compensated by adjusting the variable capacitor through the opening in the compensation box housing. A ground reference push button on the probe head permits the user to obtain a ground reference or to identify the trace of a multitrace display.

The P6105A is available in three lengths: 1 meter, 2 meters, and 3 meters.

ACCESSORIES

The P6105A is shipped with the following standard accessories:

- 1 Instruction sheet
- 1 Carrying pouch
- Retractable hook tip
- 2 Ground leads with alligator clip
- 3 Sets of cable markers (2 each: black, white, silver)
- 1 Ground-cover sleeve
- 1 IC test tip

Use of these accessories is described in the "Operating Considerations" section of this manual. Part numbers are listed in the "Replaceable Parts List" near the back of this manual.

PERFORMANCE CONDITIONS

The electrical characteristics listed in Table 1-1 apply when a calibrated probe is used with a calibrated oscilloscope system operating within the environmental conditions stated in Table 1-2.

Items listed in the "Performance Requirement" column are verifiable qualitative or quantitative limits.

Items listed in the "Supplemental Information" column are not verified in the "Performance Check Procedure" (Section 3); they are either explanatory notes, calibration setup descriptions, performance characteristics for which no absolute limits are specified, or characteristics that are impractical to check.

Physical characteristics are listed in Table 1-3.

Table 1-1

Electrical Characteristics

Characteristic	Performance Requirement	Supplemental Information
Attenuation (system)	10X ± 3% at dc.	Oscilloscope input resistance must be 1 M Ω \pm 2% at dc.
Input Resistance (system)	10 M Ω \pm 2% at dc.	Oscilloscope input resistance must be 1 M Ω \pm 2% at dc.
Probe Series Resistance	9 M Ω \pm 0.3% at dc.	
Input Capacitance		Probe connected to input and properly compensated. (See
1 Meter Probe	8.7 pF. ^a	Figure 1-1 for a graph of
2 Meter Probe	11.2 pF. ^a	input resistance (Rp) and paralle
3 Meter Probe	13.2 pF. ^a	reactance (Xp) versus frequency.

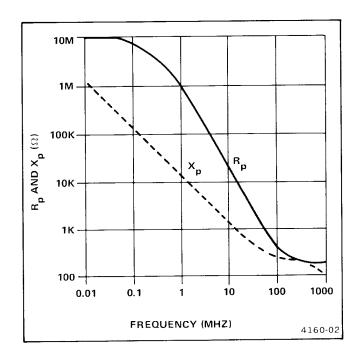
^aPerformance Requirement is not checked in manual.

Table 1-1 (cont)

Electrical Characteristics

Characteristic	Performance Requirement	Supplemental Information
System Bandwidth (-3 dB)		Measured on a TEKTRONIX 465B or equivalent. Oscilloscope bandwidth
1 Meter Probe	DC to \geq 100 MHz.	105 MHz ≤ BW ≤ 115 MHz.
2 Meter Probe	DC to ≥ 100 MHz.	
3 Meter Probe	DC to ≥ 90 MHz.	
Compensation Range		
1 Meter Probe	15 pF to 35 pF. ^a	
2 Meter Probe	15 pF to 35 pF ^a	
3 Meter Probe	15 pF to 30 pF. ^a	
Aberrations	± 3%, 5% p-p for the first 30 ns,	Oscilloscope bandwidth:
(Probe only)	\pm 2% thereafter. In addition to oscilloscope aberrations.	105 MHz ≤ BW ≤ 115 MHz.
Maximum Nondestructive Input Voltage	500 V (dc $+$ peak ac) to 1.3 MHz derated to 50 V (dc $+$ peak ac) at 100 MHz. $^{\rm a}$	See Figure 1-2 for derating curve.

^aPerformance Requirement is not checked in manual.



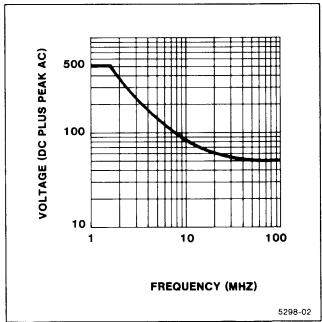


Figure 1-1. Typical $\mathbf{X}_{\mathbf{p}}$ and $\mathbf{R}_{\mathbf{p}}$ versus frequency.

Figure 1-2. Typical voltage derating versus frequency.

Table 1-2
Environmental Characteristics

Characteristic Information Temperature Range - 15°C to +75°C $(+5^{\circ}F \text{ to } + 167^{\circ}F).$ (Operating) Temperature Range - 62°C to +85°C (Nonoperating) $(-80^{\circ}F \text{ to } + 185^{\circ}F).$ Humidity Five cycles (120 hr.) at 95% to 97% relative humidity at 30°C to 60°C. Ref to MIL-E-16400F, paragraph 4.5.9 through 4.5.9.5.1, class 4. Altitude To 4,600 m (15,000 ft). (Operating) Transportation Qualifies under National Safe Transit Association's Pre-shipment Test Procedures; 1A-B-1.

Table 1-3

Physical Characteristics

Characteristic	Information	
Net Weight (includes accessories)		
1 Meter Probe2 Meter Probe3 Meter Probe	106 g (3.7 oz). 130 g (4.6 oz). 153 g (5.4 oz).	
Cable Assembly Length		_
1 Meter Probe 2 Meter Probe 3 Meter Probe	1.0 m (3.3 ft). 2.0 m (6.6 ft). 3.0 m (9.8 ft).	

OPERATING CONSIDERATIONS

PROBE HANDLING

The P6105A miniature probe body has been designed for ease of use when probing small circuitry. Both the probe itself and the accessories should be handled carefully at all times. To prevent damage, avoid dropping the probe body, since damage to the tip may result. Exercise care to prevent crushing or placing excessive strain on the cable.

PROBE GROUNDING

A passive probe is a capacitive divider for high-frequency signal components. Inductance introduced by either a long signal lead or a long ground lead will form a series-resonant circuit that will ring if driven by a signal containing significant frequency components at or above circuit resonance. These oscillations (ringing) can appear on the oscilloscope display and distort the true waveform. The ground lead and signal-input connections should be kept as short as possible to maintain the best waveform fidelity.

PROBE COMPENSATION

Due to variations in oscilloscope input characteristics, the probe low-frequency compensation should be checked and adjusted if necessary, after movement from one oscilloscope input to another. See "Low-Frequency Compensation" instructions in the "Adjustment Procedure" (Section 4).

PROBE ACCESSORIES

All standard accessories and some optional accessories for the P6105A are listed in the "Replaceable Parts List" near the back of this manual. (For a complete list of optional accessories, refer to the Tektronix Product Catalog, the Accessories Selection Guide, or your local Tektronix, Inc. Field Office or representative.) Standard accessories are supplied to aid in connecting the probe to circuitry under test, and to protect the probe against damage. Some of these accessories are illustrated in Figure 2-1.

Ground Leads

The P6105A Probe is supplied with two ground leads; one is 30 cm (12 inch) long, the other is 13 cm (5 inch) long. Each lead has a threaded end which screws into the supplied alligator clip. The other end of the lead plugs into the ground collar on the probe head. To minimize ringing, always use the shortest possible ground lead.

Carrying Pouch

The carrying pouch (not shown) is a durable, resealable pouch designed to protect the probe, its accessories, and this manual when they are not in use.

IC Test Tip

The IC test tip covers the grounding-sleeve and provides a guide for the probe tip when probing IC leads.

Ground-Cover Sleeve

The small tubular ground-cover sleeve supplied with the probe may be placed over the metal sleeve of

the probe tip. Use of this sleeve will prevent accidental grounding of the circuit under test. The sleeve should be removed when using the retractable hook tip.

Retractable Hook Tip

The retractable hook tip provides a hands-free connection to a test point or component lead so that other adjustments or functions may be accomplished. This tip is attached to the probe by sliding it over the probe tip.

NOTE

Tektronix manufactures several different hook tips. Be sure to use the hook tip specified in the parts list. Other retractable tips may not seat properly.

Cable Markers

Cable markers are provided to help identify specific probes when using multichannel oscilloscopes. The cable markers come in matching sets of two and fit over the cable strain reliefs at each end of the probe cable.

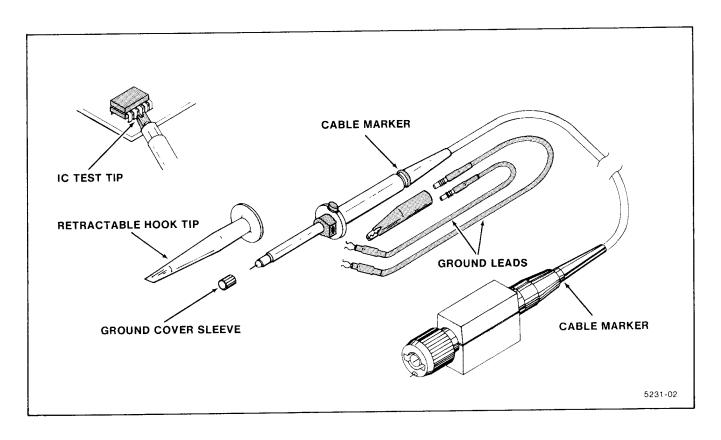


Figure 2-1. Probe accessories.

PERFORMANCE CHECK PROCEDURE

PURPOSE

This section contains procedures for verifying the low-frequency compensation, bandwidth, risetime, and attenuation accuracy for the P6105A Probe. Adjustments are described in the "Adjustments" (Section 4) portion of this manual, and if necessary, should be completed before proceeding with the performance checks.

TEST EQUIPMENT REQUIRED

The equipment listed in Table 3-1, or an equivalent piece of test equipment, is required to accomplish a complete Performance Check. In Table 3-1, the specifications given for the equipment are the minimum necessary to provide accurate results. Therefore, the equipment used must meet or exceed

the stated specifications. Refer to the appropriate test equipment instruction manual if more operating information is required.

LIMITS AND TOLERANCES

The limits and tolerances given in this procedure are for the P6105A under test only. Test equipment error is not included except as noted.

PREPARATION

Before proceeding with each step, allow sufficient warm-up time for test equipment to stabilize (typically 20 minutes). Each of the following checks can be independently performed.

Table 3-1

Test Equipment Required

Item NumberMinimumPurposeand DescriptionSpecification		Purpose	Example of Suitable Test Equipment	
1. Oscilloscope System	Bandwidth: 105 MHz ≤ BW ≤ 115 MHz. Deflection factor: 20mV/div, (0.2 V/div with probe).	Probe compensation adjustment and bandwidth check.	TEKTRONIX 465B Oscilloscope.	
2. Square-Wave Generator	Square-wave frequency: 1 kHz. Amplitude: 1.0 V into 1 M Ω .	Low-frequency and high-frequency adjustment.	TEKTRONIX PG 506 Calibration Generator. ^a	
3. Leveled Sine-Wave Generator	Amplitude: adjustable from 0 V to 1.0 V. Frequency: variable to at least 100 MHz plus a fixed 50 kHz reference.	Bandwidth check.	TEKTRONIX SG 503 Leveled Sine-wave Generator. ^a	
4. Ohmmeter	Accuracy: ± 0.11% of resistance reading.	Attenuation check.	FLUKE 8502A or equivalent.	
5. Adapter	Probe-tip-to-BNC male.	Probe compensation adjustment & bandwidth check.	Tektronix Part Number 013-0084-01.	

^aRequires a TM 500-Series power-module mainframe.

Table 3-1 (cont)

Test Equipment Required

Item Number and Description	Minimum Specification	Purpose	Example of Suitable Test Equipment
6. Low-Reactance Alignment Tool	Bit size: 1/16 inch.	Probe adjustments.	Tektronix Part Number 003-0675-01
7. Termination	Impedance: 50Ω . Connectors: BNC.	Bandwidth and High-frequency checks.	Tektronix Part Number 011-0049-01.
8. Precision Coaxial Cable	Impedance: 50Ω . Length: 36 in. Connectors: BNC.	High-frequency checks.	Tektronix Part Number 012-0482-00.
9. 10X Attenuator	Impedance: 50Ω. Connectors: BNC.	High-frequency compensation.	Tektronix Part Number 011-0059-02.

PROCEDURE STEPS

NOTE

Check and, if necessary, adjust the low-frequency and high-frequency compensation as described in "Adjustment Procedure" (Section 4). Improperly adjusted compensation may affect the probe bandwidth and risetime.

1. Bandwidth and Risetime Check

Equipment Required (see Table 3-1):

Oscilloscope system (Item 1) Leveled Sine-Wave Generator (Item 3) Adapter (Item 5) Termination (Item 7)

- a. Install the probe on the oscilloscope input connector and set the oscilloscope Volts/Div switch to 20 mV/Div (0.2 V/Div including 10X probe), and Time/Div to 1 ms.
- b. Connect the probe tip to the leveled sine-wave generator output through the 50- Ω termination and the probe-tip-to-BNC adapter.
- c. Set the sine-wave generator frequency-range switch to Ref= 0.5 (50 KHz), and set its output amplitude control to produce a 6-division display on the oscilloscope. Center the display on the screen.
- d. Adjust the generator frequency-range switch to the 50 to 100 MHz range and slowly increase the setting of the variable frequency control until the display amplitude decreases to exactly 4.2 divisions (-3dB).
- e. CHECK- That the bandwidth of the probe/oscilloscope system, as indicated by the sine-wave generator frequency readout, is at least 100 MHz.
- f. Once the bandwidth of the system is known, the approximate risetime can be calculated using the formula:

Risetime = 0.35/BW

(With a bandwidth of 100 MHz, the risetime is approximately 3.5 ns).

g. Disconnect the test setup.

2. Probe Attenuation Accuracy Check

Equipment Required (see Table 3-1):

Ohmmeter (Item 4)

- a. Connect one lead of the precision ohmmeter to the probe tip and the other lead to the inner conductor of the probe BNC connector.
- b. CHECK- that the meter reading is between 8.973 and 9.027 $M\Omega$.

NOTE

When the meter reading is between 8.973 and 9.027 M Ω and the oscilloscope has an input resistance accuracy as described in the "Specification" section, the probe dc attenuation will be within specified limits.

ADJUSTMENT PROCEDURE

PURPOSE

This section contains the information necessary to perform the low-frequency and high-frequency compensation adjustments on the P6105A Probe. The adjustment procedure is not intended to be a troubleshooting guide, however, any deficiency found during the performance of each adjustment step should be corrected before continuing. Tektronix Field Service Centers and the Factory Service Center provide instrument repair and adjustment service. Refer to "Maintenance" in Section 5 for further repair information.

TEST EQUIPMENT REQUIRED

All test equipment items listed in Table 3-1, except items 3 and 4, are needed to perform the complete Adjustment Procedure.

PREPARATION

Before proceeding with each adjustment step, allow sufficient warm-up time for test equipment to sta-

bilize (typically 20 minutes). Low-frequency compensation should always be done prior to high-frequency compensation.

PROCEDURE STEPS

1. Adjust Low-Frequency Compensation

Equipment Required (see Table 3-1)

Oscilloscope (Item 1) Square-Wave Generator (Item 2) Adapter (Item 5) Adjustment Tool (Item 6)

(Items 2 and 5 are not necessary if the oscilloscope has a calibrator output).

a. Connect the probe BNC connector to the oscilloscope vertical input.

b. Set the oscilloscope controls as follows:

Volts/Div 200 mV (includes probe

10X attenuation.)

Sec/Div 5 ms
Bandwidth Full
Input Coupling DC

c. Connect the probe tip to the oscilloscope calibration signal output. If the oscilloscope does not have a calibration output, a calibration generator may be used as follows:

Set the square-wave generator for an output of 1.0 V. The signal output should be a square wave at approximately 1 kHz.

Connect the probe tip to the generator output through a probe-tip-to-BNC adapter.

d. Set the oscilloscope triggering controls for a stable, triggered display. The display should be approximately 5 square-wave cycles with an amplitude of 5 divisions. Center the display on the screen.

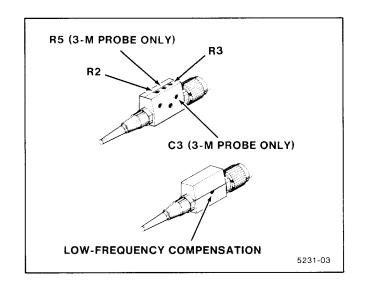
e. ADJUST - Probe Low-Frequency Compensation control for the best flat top display on the wave form by using a low-reactance adjustment tool (Figure 4-1). Typical oscilloscope waveform displays for the range of the compensation control are shown in figure 4-2.

2. Check/Adjust High-Frequency Compensation

Equipment Required (see Table 3-1):

Oscilloscope (Item 1)
Calibration Generator (Item 2)
Alignment Tool (Item 6)
Termination (Item 7)
Precision Coaxial Cable (Item 8)
10X Attenuator (Item 9)

a. Connect the positive-going, fast-rise output of the calibration generator via a $50-\Omega$ cable, a 10X attenuator, and a through-line termination to the test oscilloscope vertical input connector.



OVER COMPENSATED

CORRECT

UNDER COMPENSATED

4160-06

Figure 4-1. Compensation adjustments locations.

Figure 4-2. Low-frequency compensation.

b. Set test oscilloscope controls:

Volts/Division 10 mV
Time/Division 0.02 us
Input Coupling DC

Bandwidth Full Bandwidth

- c. Set the calibration generator to produce a fastrise output with a period (repetition rate) of 10 us (100 kHz) and adjust the amplitude control to produce a 5-division display on the test ocilloscope.
- d. Set oscilloscope triggering controls for a stable display and center the display on the screen.
- e. Note the pulse shape and system aberrations for comparison in part j.
- f. Disconnect the signal from the oscilloscope input connector.
- g. Remove the probe compensation box cover. Pry off the darker portion of the plastic shell by inserting your thumbnail in the seam between the two pieces. The lighter portion may now be easily removed from

the inner metal shield.

- h. Connect the probe output connector to the test oscilloscope vertical input connector.
- i. Connect the probe tip, via a probe-tip-to-BNC adapter, a $50-\Omega$ BNC feedthrough termination, and a $50-\Omega$ coaxial cable to the positive-going fast-rise output of the calibration generator. (A probe-tip-to-GR termination adapter, and a GR-to-BNC female adapter may also be used in place of the BNC adapters.)
- j. CHECK High-frequency aberrations do not exceed + 3% (5.15 divisions), 3% (4.85 divisions), or 5% (0.25 divisions) p-p (in addition to system aberrations noted in part e).

If probe aberrations are within tolerance, proceed to part n.

k. ADJUST — R2 and R3 for best overall flat response. (The 3-meter version of the probe has two additional adjustments, C3 and R5.) All of these adjustments should be made through access holes in the inner metal shield. See Figure 4-1 for locations.

NOTE

The high-frequency compensation adjustments affect probe bandwidth. After making these adjustments, check probe bandwidth using the procedure given in Section 3. A small overshoot on the leading edge of the pulse may be necessary to enable meeting the bandwidth specification. However, overshoot should not exceed the typical aberrations described in part j.

m. Reinstall the compensation box cover by reversing the steps in part g.

n. Disconnect the test setup.

MAINTENANCE

CLEANING

PROBE MODULE REPLACEMENT

Occasional cleaning of the exterior surfaces of the probe assembly may be necessary.

WARNING

To avoid electrical shock, do not provide any probe maintenance while the probe is connected to a signal or voltage source.

CAUTION

Do not use any chemical cleaning agents which might damage the materials used in this probe. In particular, avoid chemicals which contain benzine, toluene, xylene, acetone, or similar solvents. Use only recommended cleaning agents.

Dirt that accumulates on the probe can be removed with a soft cloth dampened with a nonresidue type cleaner, preferably isopropyl alcohol. Before using any other type of cleaner, consult your Tektronix Service Center or representative.

If the probe is damaged or fails, replacement modules are available through your local Tektronix Field Office or representative. The "Replaceable Parts List" (Section 6) provides the Tektronix part numbers and descriptions for the replacement modules.

Modular construction has been incorporated in the design of the P6105A to simplify repairs. The probe head, compensation box, and cable are available as separate units for replacement. To remove the probe head, pull the cable away from the probe head until they are unplugged. To remove the compensation box, first unscrew the retainer cover from the compensation box body, then pull on the cable until it separates from the compensation box. Individual components within the compensation box are not considered replaceable. To install new modules, reverse the above procedures.

The probe tip and the attached attenuator are also replaceable as a separate assembly. To remove the probe tip, grip the tip near the grounding sleeve (be careful not to nick or squeeze the grounding sleeve) with a pair of diagonal wire cutters. Pull the tip assembly free from the grounding sleeve with a sideways rocking motion (refer to Figure 5-1).

NOTE

If the tip is clipped off or otherwise difficult to grip with the wire cutters, it may be melted out by carefully running a fine-tipped soldering iron around the inside edge of the sleeve and then pulling out the tip assembly.

To insert a replacement tip assembly, slide the assembly inside the grounding sleeve and then press into place by gripping the probe head and firmly pressing the tip against a block of soft wood. Be careful to press perpendicular to the block to avoid breaking the new tip.

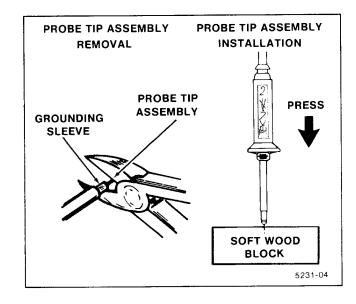


Figure 5-1. Replacing the probe tip assembly.

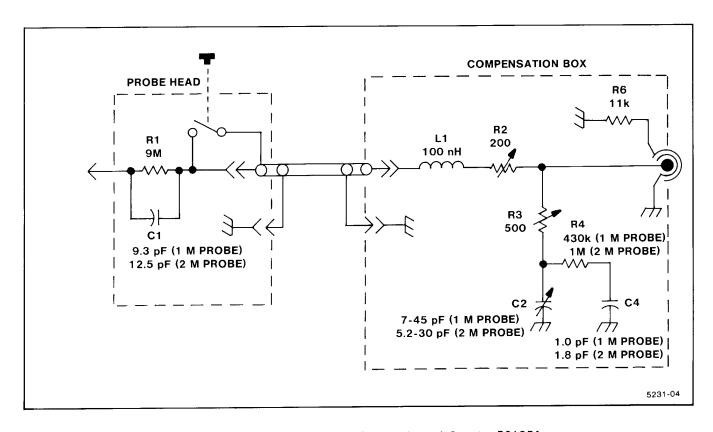


Figure 5-2. Schematic diagram for the 1- and 2-meter P6105As.

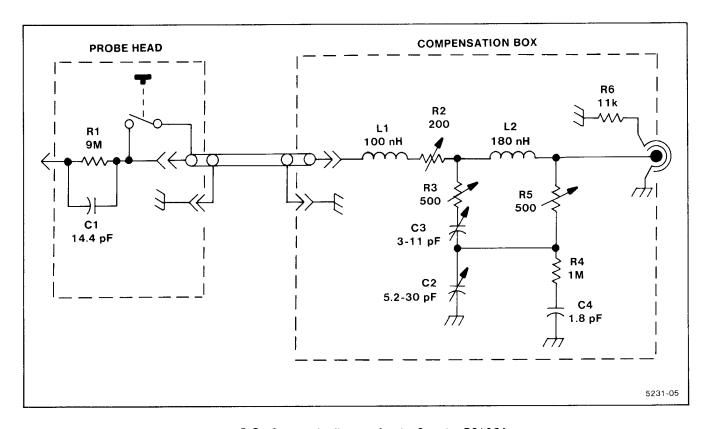


Figure 5-3. Schematic diagram for the 3-meter P6105A.

REPLACEABLE 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.

FIGURE AND INDEX NUMBERS

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

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.

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

Detail Part of Assembly and/or Component Attaching parts for Detail Part

Parts of Detail Part
Attaching parts for Parts of Detail Part

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. The separation symbol - - - * - - - indicates the end of attaching parts.

Attaching parts must be purchased separately, unless otherwise specified.

CROSS INDEX—MFR. CODE NUMBER TO MANUFACTURER

Mfr. Code	Manufacturer	Address	City, State, Zip
24931	SPECIALITY CONNECTOR CO., INC. TEKTRONIX, INC. CONSOLIDATED VINYL SALES	2620 ENDRESS PLACE	GREENWOOD, IN 46142
80009		P O BOX 500	BEAVERTON, OR 97077
T1556		1237 S. SAN GABRIEL BLVD	SAN GABRIEL CA 91776

Index	Fig. &	Taletranie	CariaUMa	dal Na			Mfr	
010.6105.11	Index	Tektronix			Otu	1 0 2 1 E		Mater David Niconstrain
1 PROBE, VOLTAGE: P6105A, 10X, 2M, W/ACCESSORIES 80009 010-6105-13 010-6105-15 010-6105-11 010-6105-11 010-6105-11 010-6105-11 010-6105-11 010-6105-11 010-6105-13 010-6105-	NO.	Part No.	EII	DSCON	Qty	1 2 3 4 5 Name & Description	Code	Wiff Part Number
1		040 0405 44				DDODE VOLTAGE DOLOGA 10V 114 W/A CCECCORIE	-c 90000	010 6105 11
1 METER 1 METER 1 METER 1 METER 1 METER 206-0331-00 1 COMP BOX ASSY:P6105A,10X,1M,W/ACCESSORIES 80009 010-6105-15 1					1			
1 METER 1 010-6105-11					1			
1- 010-6105-11 1 1 PROBE,VOLTAGE:P6105A,10X,1M,W/ACCESSORIES 80009 010-6105-11 206-0331-00 1 1 .COMP BOX ASSY:P6105A,1.0 METER 80009 205-0331-00 2 131-3219-00 1 .CONN,RCPT,ELEC:BNC,MALE W/READOUT,10X 24931 28P266-3 200-3018-00 1 .COVER,CABLE NIP:COMP BOX 80009 200-3018-00 4 200-3016-12 1 .COVER,COMP BOX:TOP,ABS DOVE GRAY 80009 200-3016-12 2 200-3017-00 1 .COVER,COMP BOX:TOP,ABS DOVE GRAY 80009 200-3016-12 2 200-3017-00 1 .COVER,COMP BOX:TOP,ABS DOVE GRAY 80009 200-3016-12 2 2 200-3017-00 1 .COVER,COMP BOX:TOP,ABS DOVE GRAY 80009 200-3016-12 2 2 200-3037-00 1 .PROBE HEAD:1.0 METER CABLE 80009 206-0328-00 2 206-0328-00 1 .PROBE HEAD:1.0 METER CABLE 80009 206-0328-00 2 206-0336-01 1 .PROBE HEAD:1.0 METER,BLUE,PKG OF 5 80009 206-0336-01 8 175-9419-00 1 .CABLE ASSY,RF:0.004 DIA COAX,1.0 METER 80009 175-9419-00 2 2 METER 80009 175-9419-00 1 .COMP BOX ASSY:P6105A,2.0 METER 80009 206-0334-00 2 1 31-3219-00 1 .CONP,RCPT,ELEC:BNC,MALE W/READOUT,10X 24931 28P266-3 2 200-3018-00 1 .COVER,COMP BOX:TOP,ABS DOVE GRAY 80009 200-3018-00 4 200-3016-13 1 .COVER,COMP BOX:TOP,ABS DOVE GRAY 80009 200-3016-13 5 200-3017-00 1 .COVER,COMP BOX:TOP,ABS DOVE GRAY 80009 200-3016-13 5 200-3017-00 1 .PROBE HEAD:2.0 METER 80009 200-3017-00 206-0337-01 1 .PROBE HEAD:2.0 METER 80009 200-3017-00 206-0337-01 1 .PROBE HEAD:2.0 METER 80009 200-3017-00 206-0337-01		010-6105-15			1	PROBE, VOLTAGE: P6105A, TUX, 3M, W/ACCESSORIE	=5 80009	010-6105-15
1- 010-6105-11 1 1 PROBE,VOLTAGE:P6105A,10X,1M,W/ACCESSORIES 80009 010-6105-11 206-0331-00 1 1 .COMP BOX ASSY:P6105A,1.0 METER 80009 205-0331-00 2 131-3219-00 1 .CONN,RCPT,ELEC:BNC,MALE W/READOUT,10X 24931 28P266-3 200-3018-00 1 .COVER,CABLE NIP:COMP BOX 80009 200-3018-00 4 200-3016-12 1 .COVER,COMP BOX:TOP,ABS DOVE GRAY 80009 200-3016-12 2 200-3017-00 1 .COVER,COMP BOX:TOP,ABS DOVE GRAY 80009 200-3016-12 2 200-3017-00 1 .COVER,COMP BOX:TOP,ABS DOVE GRAY 80009 200-3016-12 2 2 200-3017-00 1 .COVER,COMP BOX:TOP,ABS DOVE GRAY 80009 200-3016-12 2 2 200-3037-00 1 .PROBE HEAD:1.0 METER CABLE 80009 206-0328-00 2 206-0328-00 1 .PROBE HEAD:1.0 METER CABLE 80009 206-0328-00 2 206-0336-01 1 .PROBE HEAD:1.0 METER,BLUE,PKG OF 5 80009 206-0336-01 8 175-9419-00 1 .CABLE ASSY,RF:0.004 DIA COAX,1.0 METER 80009 175-9419-00 2 2 METER 80009 175-9419-00 1 .COMP BOX ASSY:P6105A,2.0 METER 80009 206-0334-00 2 1 31-3219-00 1 .CONP,RCPT,ELEC:BNC,MALE W/READOUT,10X 24931 28P266-3 2 200-3018-00 1 .COVER,COMP BOX:TOP,ABS DOVE GRAY 80009 200-3018-00 4 200-3016-13 1 .COVER,COMP BOX:TOP,ABS DOVE GRAY 80009 200-3016-13 5 200-3017-00 1 .COVER,COMP BOX:TOP,ABS DOVE GRAY 80009 200-3016-13 5 200-3017-00 1 .PROBE HEAD:2.0 METER 80009 200-3017-00 206-0337-01 1 .PROBE HEAD:2.0 METER 80009 200-3017-00 206-0337-01 1 .PROBE HEAD:2.0 METER 80009 200-3017-00 206-0337-01	•							
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200-3018-00	-1	206-0331-00			1	.COMP BOX ASSY:P6105A,1.0 METER	80009	206-0331-00
-3 200-3018-00 1COVER,CABLE NIP:COMP BOX 80009 200-3018-00 -4 200-3016-12 1COVER,COMP BOX:TOP,ABS DOVE GRAY 80009 200-3016-12 -5 200-3017-00 1COVER,COMP BOX:BOTTOM,ABS SLATE GRAY 80009 200-3017-00 -6 206-0328-00 1PROBE HEAD:1.0 METER CABLE 80009 206-0328-00 -7 206-0336-01 1PROBE HEAD:1.0 METER,BLUE,PKG OF 5 80009 206-0338-01 -8 175-9419-00 1CABLE ASSY,RF:0.004 DIA COAX,1.0 METER 80009 175-9419-00	-2	131-3219-00			1	CONN,RCPT,ELEC:BNC,MALE W/READOUT,10X	24931	28P266-3
200-3017-00 1COVER,COMP BOX:BOTTOM,ABS SLATE GRAY 80009 200-3017-00 206-0328-00 1 .PROBE HEAD:1.0 METER CABLE 80009 206-0328-00 206-0336-01 1PROBE HEAD:1.0 METER,BLUE,PKG OF 5 80009 206-0336-01 206-0336-01 1 .CABLE ASSY,RF:0.004 DIA COAX,1.0 METER 80009 175-9419-00 2 METER 1 PROBE,VOLTAGE:P6105A,10X,2M,W/ACCESSORIES 80009 010-6105-13 206-0334-00 1 .COMP BOX ASSY:P6105A,2.0 METER 80009 206-0334-00 2 131-3219-00 1CONN,RCPT,ELEC:BNC,MALE W/READOUT,10X 24931 28P266-3 3 200-3018-00 1COVER,CABLE NIP:COMP BOX 80009 200-3018-00 4 200-3016-13 1COVER,CABLE NIP:COMP BOX 80009 200-3018-00 4 200-3016-13 1COVER,COMP BOX:TOP,ABS DOVE GRAY 80009 200-3016-13 5 200-3017-00 1COVER,COMP BOX:BOTTOM,ABS SLATE GRAY 80009 200-3017-00 6 206-0301-00 1 .PROBE HEAD:2.0 METER 7 206-0337-01 1PROBE HEAD:2.0 METER,YELLOW,PKG OF 5 80009 206-0337-01		200-3018-00			1	COVER,CABLE NIP:COMP BOX	80009	200-3018-00
-6 206-0328-00 1 .PROBE HEAD:1.0 METER CABLE 80009 206-0328-00 -7 206-0336-01 1 .PROBE HEAD:1.0 METER,BLUE,PKG OF 5 80009 206-0336-01 -8 175-9419-00 1 .CABLE ASSY,RF:0.004 DIA COAX,1.0 METER 80009 175-9419-00	-4	200-3016-12			1	COVER,COMP BOX:TOP,ABS DOVE GRAY	80009	200-3016-12
-7 206-0336-01 1PROBE HEAD:1.0 METER,BLUE,PKG OF 5 80009 206-0336-01 -8 175-9419-00 1CABLE ASSY,RF:0.004 DIA COAX,1.0 METER 80009 175-9419-00	-5	200-3017-00			1	COVER,COMP BOX:BOTTOM,ABS SLATE GRAY	80009	200-3017-00
-8 175-9419-00 1 .CABLE ASSY,RF:0.004 DIA COAX,1.0 METER 80009 175-9419-00	-6	206-0328-00			1	.PROBE HEAD:1.0 METER CABLE	80009	206-0328-00
2 METER 2 METER 010-6105-13	-7	206-0336-01			1	PROBE HEAD:1.0 METER,BLUE,PKG OF 5	80009	206-0336-01
010-6105-13	-8	175-9419-00			1	.CABLE ASSY,RF:0.004 DIA COAX,1.0 METER	80009	175-9419-00
010-6105-13								
010-6105-13	•					2 METER		
-1 206-0334-00 1 .COMP BOX ASSY:P6105A,2.0 METER 80009 206-0334-00 -2 131-3219-00 1 .CONN,RCPT,ELEC:BNC,MALE W/READOUT,10X 24931 28P266-3 -3 200-3018-00 1 .COVER,CABLE NIP:COMP BOX 80009 200-3018-00 -4 200-3016-13 1 .COVER,COMP BOX:TOP,ABS DOVE GRAY 80009 200-3016-13 -5 200-3017-00 1 .COVER,COMP BOX:BOTTOM,ABS SLATE GRAY 80009 200-3017-00 -6 206-0301-00 1 .PROBE HEAD:2.0 METER -7 206-0337-01 1 .PROBE HEAD:2.0 METER,YELLOW,PKG OF 5 80009 206-0337-01								
-2 131-3219-00 1 CONN,RCPT,ELEC:BNC,MALE W/READOUT,10X 24931 28P266-3 -3 200-3018-00 1 COVER,CABLE NIP:COMP BOX 80009 200-3018-00 -4 200-3016-13 1 COVER,COMP BOX:TOP,ABS DOVE GRAY 80009 200-3016-13 -5 200-3017-00 1 COVER,COMP BOX:BOTTOM,ABS SLATE GRAY 80009 200-3017-00 -6 206-0301-00 1 PROBE HEAD:2.0 METER 80009 206-0301-00 -7 206-0337-01 1 PROBE HEAD:2.0 METER,YELLOW,PKG OF 5 80009 206-0337-01		010-6105-13			1	PROBE, VOLTAGE: P6105A, 10X, 2M, W/ACCESSORIE	ES 80009	010-6105-13
-3 200-3018-00 1COVER,CABLE NIP:COMP BOX 80009 200-3018-00 -4 200-3016-13 1COVER,COMP BOX:TOP,ABS DOVE GRAY 80009 200-3016-13 -5 200-3017-00 1COVER,COMP BOX:BOTTOM,ABS SLATE GRAY 80009 200-3017-00 -6 206-0301-00 1PROBE HEAD: 2.0 METER 80009 206-0301-00 -7 206-0337-01 1PROBE HEAD: 2.0 METER,YELLOW,PKG OF 5 80009 206-0337-01	-1	206-0334-00			1	COMP BOX ASSY:P6105A,2.0 METER	80009	206-0334-00
-4 200-3016-13 1COVER,COMP BOX:TOP,ABS DOVE GRAY 80009 200-3016-13 -5 200-3017-00 1COVER,COMP BOX:BOTTOM,ABS SLATE GRAY 80009 200-3017-00 -6 206-0301-00 1 .PROBE HEAD:2.0 METER 80009 206-0301-00 -7 206-0337-01 1PROBE HEAD:2.0 METER,YELLOW,PKG OF 5 80009 206-0337-01	-2	131-3219-00			1	CONN,RCPT,ELEC:BNC,MALE W/READOUT,10X	24931	28P266-3
-5 200-3017-00 1COVER,COMP BOX:BOTTOM,ABS SLATE GRAY 80009 200-3017-00 -6 206-0301-00 1 .PROBE HEAD:2.0 METER 80009 206-0301-00 -7 206-0337-01 1PROBE HEAD:2.0 METER,YELLOW,PKG OF 5 80009 206-0337-01	-3	200-3018-00			1	COVER,CABLE NIP:COMP BOX	80009	200-3018-00
-6 206-0301-00 1 .PROBE HEAD:2.0 METER 80009 206-0301-00 -7 206-0337-01 1PROBE HEAD:2.0 METER,YELLOW,PKG OF 5 80009 206-0337-01	-4	200-3016-13			1	COVER,COMP BOX:TOP,ABS DOVE GRAY	80009	200-3016-13
-6 206-0301-00 1 .PROBE HEAD: 2.0 METER 80009 206-0301-00 -7 206-0337-01 1 PROBE HEAD: 2.0 METER, YELLOW, PKG OF 5 80009 206-0337-01	-5	200-3017-00			1	COVER,COMP BOX:BOTTOM,ABS SLATE GRAY	80009	200-3017-00
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	-6	206-0301-00			1	.PROBE HEAD: 2.0 METER	80009	206-0301-00
-8 175-9409-00 1 .CABLE ASSY,RF:0.004 DIA COAX,2.0 METER 80009 175-9409-00	-7	206-0337-01			1	PROBE HEAD: 2.0 METER, YELLOW, PKG OF 5	80009	206-0337-01
	-8	175-9409-00			1	.CABLE ASSY,RF:0.004 DIA COAX,2.0 METER	80009	175-9409-00

Fig. & Index	Tektronix		Model No.				Mfr	
No.	Part No.	Eff	Dscont	Qty	1 2 3 4 5	Name & Description	Code	Mfr Part Number
					3 METER			
	010-6105-15			1	PROBE, VOLTAGE	::P6105A,10X,3M,W/ACCESSORIES	80009	010-6105-15
-1	206-0320-02			1	COMP BOX ASS	Y:P6105A,3.0 METER	80009	206-0320-02
-2	131-3219-00			1	CONN,RCPT,EL	EC:BNC,MALE W/READOUT,10X	24931	28P266-3
-3	200-3018-00			1	COVER,CABLE	NIP:COMP BOX	80009	200-3018-00
-4	200-3016-14			1	COVER,COMP	BOX:TOP,ABS DOVE GRAY	80009	200-3016-14
-5	200-3017-00			1	COVER,COMP B	BOX:BOTTOM,ABS SLATE GRAY	80009	200-3017-00
-6	206-0302-00			1	.PROBE HEAD:3.	0 METER	80009	206-0302-00
-7	206-0338-01			1	PROBE HEAD:3	.0 METER,RED,PKG OF 5	80009	206-0338-01
-8	175-9410-00			1	.CABLE ASSY,RF	:0.004 DIA COAX,3.0 METER	80009	175-9410-00
					STANDARD ACC	ESSORIES		
-9	015-0201-04			1	TIP,PROBE:IC TE	ST,PKG OF 10	80009	015-0201-04
	015-0201-05			1	TIP,PROBE:IC TE	ST,PKG OF 100	80009	015-0201-05
-10	016-0708-00			1	POUCH, ACCESS	ORY:	T1556	ZIP-6.25X9.25ID
-11	013-0107-05			1	.TIP,PROBE:RETI	RACTABLE HOOK ASSY	80009	013-0107-05
-12	166-0404-01			1	.COVER,GROUND	D:	80009	166-0404-01
-13	175-0124-01			1	.LEAD,ELECTRIC	AL:STRD,23 AWG,BLK VINYL,5.0	80009	175-0124-01
-14	175-0125-01			1	.LEAD,ELECTRIC	AL:STRD,24 AWG,GRAY VINYL,12	80009	175-0125-01
-15	344-0046-00			1	.CLIP,ELECTRICA	L:ALLIGATOR,1.56 L,STL BRT	80009	344-0046-00
	334-2794-00			2	BAND, MARKER: 0	0.371 DIA,BLACK,PLASTIC,5.0	80009	334-2794-00
	334-2794-01			2	BAND,MARKER:0	0.371 DIA,WHITE,PLASTIC,5.0	80009	334-2794-01
	334-2794-02			2	BAND, MARKER: 0	.371 DIA,SILVER GRAY,PLAST	80009	334-2794-02
	070-5231-00			1	MANUAL, TECH: IN	NSTR,P6105A PROBE	80009	070-5231-00

