



4345-1

P6460 data acquisition probe.

INTRODUCTION

The P6460 is a 100 MHz data acquisition probe suitable for use with the 1240 Logic Analyzer 1240D1 and 1240D2 Acquisition Cards and the DAS 91A24 and 91AE24 Data Acquisition Modules. The P6460 has nine data channels and a clock line. When used with the DAS, one of the data channels serves as a clock qualifier.

NOTE

This probe only works with the DAS 91A24 and 91AE24 modules, it does not work with any other DAS modules

These Instructions contain the service information for this probe. For convenience, put a copy of them in the back of the service manual for the logic analyzer that the probe will usually be used with.

Labels

Two labels are included with your probe. The one with an 8 in the upper left corner and a C/Q in the upper right corner is for use with 1240 Logic Analyzers. The label with a Q in the upper left corner and a CK in the upper right corner is for use with DAS 91A24 and 91AE24 Data Acquisition Modules.

Operator's Information

This manual contains primarily service information. For operator's information, refer to the operator's manual of the instrument that the probe is to be used with, either the *1240 Logic Analyzer Operator's Manual* or the *DAS 9100 Series Operator's Manual*.

ACCESSORIES

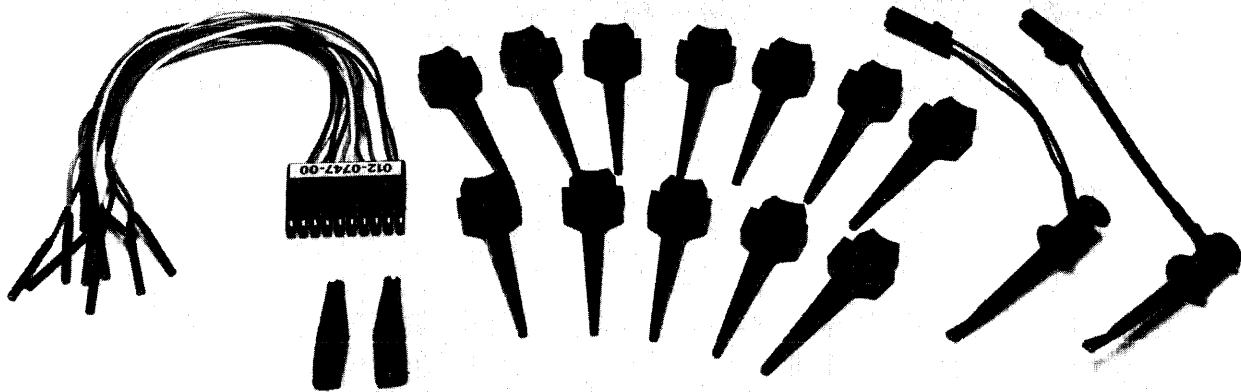
Standard Accessories:

1 Instruction Sheet	070-4345-00
1 Lead Set, 10 inch	012-0747-00
1 Package of 12 Probe Tips (each tip is a 206-0222-00)	020-0720-00
2 Ground (or VL) Sense Leads, 5 inch with Pomona Hook Tips (344-0267-00)	012-0989-00
2 Alligator Clips (substitute for hook tips above)	344-0046-00

Optional Accessories:

Flying Lead Set, 5 inches long	012-0987-00
Flying Lead Set, 25 cm long	012-0800-00
40-pin Univ. Probe Intfc. Kit	020-1041-00

1240 Diagnostic Lead Set	198-5069-00
Diagnostic Lead Set, 10 inches long	012-1000-00
Package of 10 Ground (or VL) Sense Leads with Pomona Hook Tips (344-0267-00)	012-0989-01
GPIB Connector/Adapter	103-0209-00
IC Extractor, 16 pin	003-0709-00
Adapter, Test Clip, 16 DIP	015-0330-00
Adapter, Test Clip, 40 DIP, 10 cm cable (requires 380-0560-05 Adapter)	015-0339-02
Adapter, Test Clip, 40 DIP, 30 cm cable (requires 380-0560-05 Adapter)	015-0339-00
Adapter, required for use with 40 DIP Adapters	380-0560-05



Standard accessories for the P6460.

GROUND CONNECTIONS AND FREQUENCY

For clock operating frequencies up to 25 MHz, the 10-inch lead sets (012-0747-00 or 012-0800-00) with one USER'S GND lead connected are sufficient.

For clock operating frequencies above 25 MHz but below 50 MHz, 10-inch lead sets may be used if both USER'S GND leads are connected.

For frequencies above 50 MHz and noisy environments, be sure to use the 5-inch lead sets (012-0987-00) and both USER'S GND leads with alligator clips.

SERVICE INFORMATION

WARNING

Disconnect power before removing protective coverings, soldering, or replacing components.

TEKTRONIX FIELD SERVICE

Service of Tektronix products is available from Tektronix Service Centers around the world. Contact your local sales or service organization for more information.

SPECIFICATIONS

Table 1
ELECTRICAL SPECIFICATIONS

Characteristic	Performance Requirements	Supplemental Information
MODULE-TO-PROBE SIGNALS		
Max. Operating Power Requirements		+5 V ($\pm 5\%$) at 600 mA when 20 output lines are terminated to +3 V through 60 Ω , at 300 mA when all output lines are unterminated
PROBE-TO-MODULE SIGNALS		
Data Channel Signal		Differential ECL Vcc = +5 V Vee = Gnd
User's Ground Sense		< 100 Ω to user's ground
Input Resistance	1 M Ω \pm 1%	
Input Capacitance		5 pF nominal
Max. Non-Destructive Input Voltage Range		± 40 V (DC + peak AC)
Max. Voltage Between Any Two Inputs		± 60 V (DC + peak AC)
Operating Input Voltage Range		From -40 V to input threshold's voltage + 10 V (+ 30 V for RS-232 only)
Threshold Offset and Accuracy		$\pm 0.25\%$ of threshold ± 50 mV
Minimum Input Swing		0.5 V p-p centered on the threshold
Minimum Pulse Width (with input 250 mV over the threshold from + 0.5 V and - 0.5 V)		4 ns at threshold

**Table 2
ENVIRONMENTAL SPECIFICATIONS**

Characteristic	Description
Temperature Operating Storage	-15°C to +55°C -62°C to +75°C
Humidity	95% to 97% relative humidity
Altitude Operating Non-operating	4.5 km (15,000 ft.) 15 km (50,000 ft.)
Electrical Discharge	5 kV maximum from 200 pf with 2K Ω series resistance

STATIC PRECAUTIONS



Static discharge can damage any semiconductor in this instrument.

Observe the following precautions to avoid static damage:

1. Minimize handling of static-sensitive components.
2. Transport and store static-sensitive components or assemblies in their original containers, or on a metal rail, or on conductive foam. Label any package that contains static-sensitive components or assemblies.
3. Discharge the static voltage from your body by wearing a wrist strap while handling these components. Servicing static-sensitive assemblies should be performed only in a static-free work station by qualified service personnel.

**Table 3
PHYSICAL SPECIFICATIONS**

Characteristic	Description
Weight	12 oz.
Overall Dimensions	
Pod	4.5 in. long, 2.2 in. wide, 0.85 in. deep
Cable	78.75 in. (2 m) ± 10%

4. Nothing capable of generating or holding a static charge should be allowed on the work station surface.
5. Keep the component leads shorted together whenever possible.
6. Pick up components by the body, never by the leads.
7. Do not slide the components over any surface.
8. Avoid handling components in areas that have a floor or work-surface covering capable of generating a static charge.
9. Use a soldering iron that is connected to earth ground.
10. Use only special anti-static suction type or wick type desoldering tools.

NOTE

Damage to electrical components may not be immediately apparent. Always follow the precautionary measures listed above when handling static-sensitive components.

PERFORMANCE CHECK

Specification Checked

The input resistance of each channel should be $1\text{ M}\Omega \pm 1\%$.

Required Equipment

One digital multimeter with at least 0.2% accuracy at $1\text{ M}\Omega$.
For example, the Tektronix DM 5010.

Procedure

1. With the probe disconnected, measure the resistance between the input to the channel you are checking and any other channel. Call this value R_a .

2. Next, measure the resistance between the input to the channel you want to measure and a third channel. Call this value R_b .

3. Finally, measure the resistance between the two other channels. Call this value R_c .

4. Calculate the value of the input resistance of the original channel using:

$$R_{input} = \frac{R_a + R_b - R_c}{2}$$

REPLACEABLE ELECTRICAL 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.

LIST OF ASSEMBLIES

A list of assemblies can be found at the beginning of the Electrical Parts List. The assemblies are listed in numerical order. When the complete component number of a part is known, this list will identify the assembly in which the part is located.

CROSS INDEX-MFR. CODE NUMBER TO MANUFACTURER

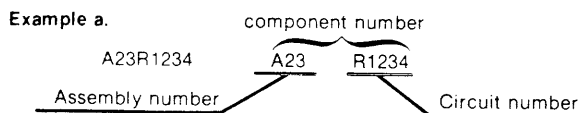
The Mfr. Code Number to Manufacturer index for the Electrical Parts List is located immediately after this page. The Cross Index provides codes, names and addresses of manufacturers of components listed in the Electrical Parts List.

ABBREVIATIONS

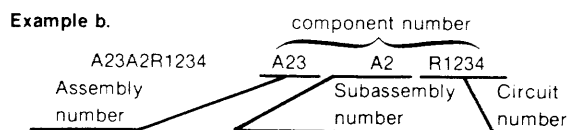
Abbreviations conform to American National Standard Y1.1.

COMPONENT NUMBER (column one of the Electrical Parts List)

A numbering method has been used to identify assemblies, subassemblies and parts. Examples of this numbering method and typical expansions are illustrated by the following:



Read: Resistor 1234 of Assembly 23



Read: Resistor 1234 of Subassembly 2 of Assembly 23

Only the circuit number will appear on the diagrams and circuit board illustrations. Each diagram and circuit board illustration is clearly marked with the assembly number. Assembly numbers are also marked on the mechanical exploded views located in the Mechanical Parts List. The component number is obtained by adding the assembly number prefix to the circuit number.

The Electrical Parts List is divided and arranged by assemblies in numerical sequence (e.g., assembly A1 with its subassemblies and parts, precedes assembly A2 with its subassemblies and parts).

Chassis-mounted parts have no assembly number prefix and are located at the end of the Electrical Parts List.

TEKTRONIX PART NO. (column two of the Electrical Parts List)

Indicates part number to be used when ordering replacement part from Tektronix.

SERIAL/MODEL NO. (columns three and four of the Electrical Parts List)

Column three (3) indicates the serial number at which the part was first used. Column four (4) indicates the serial number at which the part was removed. No serial number entered indicates part is good for all serial numbers.

NAME & DESCRIPTION (column five of the Electrical Parts List)

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.

MFR. CODE (column six of the Electrical Parts List)

Indicates the code number of the actual manufacturer of the part. (Code to name and address cross reference can be found immediately after this page.)

MFR. PART NUMBER (column seven of the Electrical Parts List)

Indicates actual manufacturers part number

Replaceable Electrical Parts—P6460

CROSS INDEX—MFR. CODE NUMBER TO MANUFACTURER

Mfr. Code	Manufacturer	Address	City, State, Zip
01121	ALLEN-BRADLEY COMPANY	1201 2ND STREET SOUTH	MILWAUKEE, WI 53204
03508	GENERAL ELECTRIC COMPANY, SEMI-CONDUCTOR PRODUCTS DEPARTMENT	ELECTRONICS PARK	SYRACUSE, NY 13201
04222	AVX CERAMICS, DIVISION OF AVX CORP.	P O BOX 867	MYRTLE BEACH, SC 29577
22526	BERG ELECTRONICS, INC.	YOUK EXPRESSWAY	NEW CUMBERLAND, PA 17070
24546	CORNING GLASS WORKS, ELECTRONIC COMPONENTS DIVISION	550 HIGH STREET	BRADFORD, PA 16701
27014	NATIONAL SEMICONDUCTOR CORP.	2900 SEMICONDUCTOR DR.	SANTA CLARA, CA 95051
59660	TUSONIX INC.	2155 N FORBES BLVD	TUCSON, AZ 85705
80009	TEKTRONIX, INC.	P O BOX 500	BEAVERTON, OR 97077
81073	GRAYHILL, INC.	561 HILLGROVE AVE., PO BOX 373	LA GRANGE, IL 60525
91637	DALE ELECTRONICS, INC.	P. O. BOX 609	COLUMBUS, NE 68601

Replaceable Electrical Parts—P6460

Component No.	Tektronix Part No.	Serial/Model No. Eff Dscont	Name & Description	Mfr Code	Mfr Part Number
A70	----		CKT BOARD ASSY:MAIN		
A70	----		(NOT REPLACEABLE-ORDER 672-1119-01)		
A70C104	283-0186-00		CAP.,FXD,CER DI:27PF,5%,50V	59660	811A058C0G0270J
A70C121	283-0177-00		CAP.,FXD,CER DI:1UF,+80-20%,25V	04222	SR302E105ZAA
A70C122	283-0177-00		CAP.,FXD,CER DI:1UF,+80-20%,25V	04222	SR302E105ZAA
A70CR115	152-0333-00		SEMICON DVC DI:SW,SI,55V,200MA,D0-35	03508	DJ2011
A70J126	131-2615-00		CONN,RCPT,ELEC:CKT BD,17/34 CONT	22526	65820-005
A70R106	317-0100-00		RES.,FXD,CMPSN:10 OHM,5%,0.125W	01121	BB1005
A70R109	307-0706-00		RES NTWK,FXD,FI:4,10K OHM,2%,0.2W	01121	208B103
A70R221	321-0292-07		RES.,FXD,FILM:10.7K OHM,0.1%,0.125W	24546	NE55E1182B
A70R222	321-0463-00		RES.,FXD,FILM:649K OHM,1%,0.125W	91637	MFF1816G64902F
A70R309	317-0151-00		RES.,FXD,CMPSN:150 OHM,5%,0.125W	01121	BB1515
A70R313	317-0510-00		RES.,FXD,CMPSN:51 OHM,5%,0.125W	01121	BB5105
A70U115	156-0625-01		MICROCIRCUIT,DI:8 BIT PRL LOAD SHIFT RGTR	27014	74C165JA+
A70W120	195-1715-00		LEAD,ELECTRICAL:26 AWG,2.5 L,9-2	80009	195-1715-00
CHASSIS PARTS					
DL319	175-1580-01		CABLE,SP,ELEC:26 AWG,SOLID TWISTED PAIR	80009	175-1580-01
J100	131-1811-00		TERM SET,PIN:10,0.025 SQ ON 0.15 CTR	22526	65595-110
J135	196-0797-00		LEAD,ELECTRICAL:26 AWG,2.5 L,9-3	80009	196-0797-00
J200	131-1811-00		TERM SET,PIN:10,0.025 SQ ON 0.15 CTR	22526	65595-110
J300	131-1811-00		TERM SET,PIN:10,0.025 SQ ON 0.15 CTR	22526	65595-110
J301	131-1812-00		TERM SET,PIN:10,0.025 SQ ON 0.15 CTR	22526	65603-110
R104	317-0111-00		RES.,FXD,CMPSN:110 OHM,5%,0.125W	01121	BB1115
R105	317-0111-00		RES.,FXD,CMPSN:110 OHM,5%,0.125W	01121	BB1115
R107	317-0111-00		RES.,FXD,CMPSN:110 OHM,5%,0.125W	01121	BB1115
R108	317-0111-00		RES.,FXD,CMPSN:110 OHM,5%,0.125W	01121	BB1115
R204	317-0111-00		RES.,FXD,CMPSN:110 OHM,5%,0.125W	01121	BB1115
R205	317-0111-00		RES.,FXD,CMPSN:110 OHM,5%,0.125W	01121	BB1115
R208	317-0111-00		RES.,FXD,CMPSN:110 OHM,5%,0.125W	01121	BB1115
R304	317-0111-00		RES.,FXD,CMPSN:110 OHM,5%,0.125W	01121	BB1115
R306	317-0111-00		RES.,FXD,CMPSN:110 OHM,5%,0.125W	01121	BB1115
R308	317-0111-00		RES.,FXD,CMPSN:110 OHM,5%,0.125W	01121	BB1115
S100	260-0735-01		SWITCH,PUSH:T,NO CONTACT,BLACK BTN	81073	39-3
U302	----		MICROCIRCUIT,DI:LOGIC ACQ CIRCUIT		
U302	----		(NOT REPLACEABLE,ORDER 672-1119-01)		

REPLACEABLE MECHANICAL PARTS

PARTS ORDERING INFORMATION

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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.

SPECIAL NOTES AND SYMBOLS

- X000 Part first added at this serial number
- 00X Part removed after this serial number

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
    - - - * - - -
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.

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.

ABBREVIATIONS

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

Replaceable Mechanical Parts—P6460

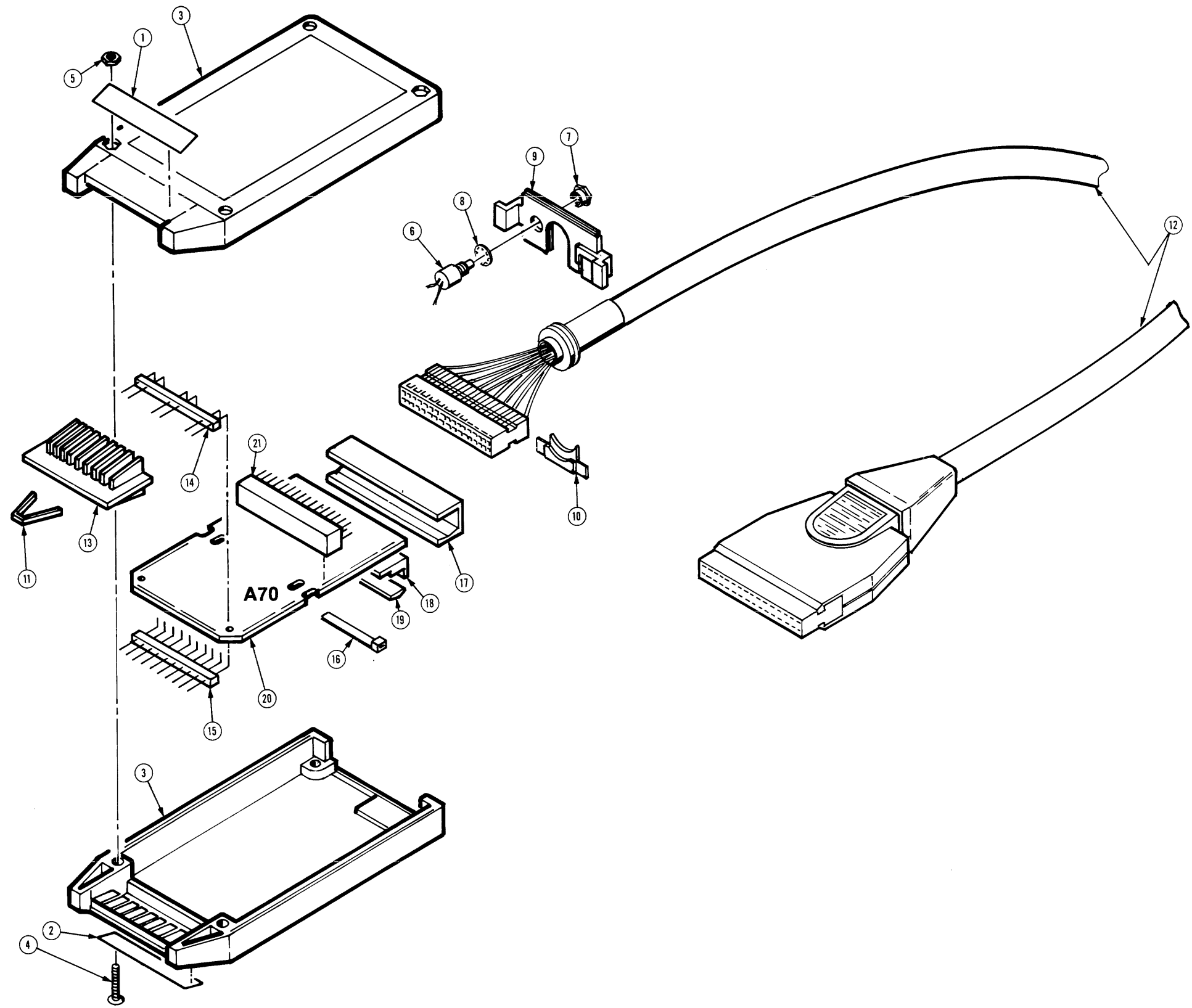
CROSS INDEX—MFR. CODE NUMBER TO MANUFACTURER

Mfr. Code	Manufacturer	Address	City, State, Zip
06383	PANDUIT CORPORATION	17301 RIDGELAND	TINLEY PARK, IL 60477
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

Replaceable Mechanical Parts—P6460

Fig. & Index No.	Tektronix Part No.	Serial/Model No.		Qty	1 2 3 4 5	Name & Description	Mfr	
		Eff	Dscont				Code	Mfr Part Number
1-	P6460			1		PROBE,DATA ACQ:100MHZ	80009	010-6460-00
-1	334-4855-00			1		.MARKER,IDENT:DIAGNOSTIC	80009	334-4855-00
-2	334-4854-00			1		.MARKER,IDENT:DATA ACQUISITION PROBE	80009	334-4854-00
	334-4856-00			1		.MARKER,IDENT:MKD P6460 ACQUISITION PROBE	80009	334-4856-00
-3	380-0710-00			1		.HOUSING,PROBE:POLYCARB,SLATE GRAY,LOWER	80009	380-0710-00
	380-0711-00			1		.HOUSING,PROBE:POLYCARB,SLATE GRAY,UPPER	80009	380-0711-00
						***** (ATTACHING PARTS) *****		
-4	211-0086-00			4		.SCREW,MACHINE:4-40 X 0.75 100° DEG,FLH ST	83385	ORD BY DESCR
-5	210-0406-00			4		.NUT,PLAIN,HEX:4-40 X 0.188,BRS,CD PL	73743	12161-50
						***** (END ATTACHING PARTS) *****		
	348-0390-00			1		.CUSHION,PROBE:1.5 X 2.0 X 0.25 POLY FOAME	80009	348-0390-00
-6	200-2731-00			2		.COVER,HOLE:POLYCARB,GRAY	80009	200-2731-00
-7	175-6807-00			1		.CA ASSY,PROBE:2 METERS	80009	175-6807-00
	672-1119-01			1		.CKT BD ASSY:MAIN BD W/MICROCKT	80009	672-1119-01
-8	-----			1		..SWITCH,PUSH:(SEE S100 REPL)		
						***** (ATTACHING PARTS) *****		
-9	358-0660-00			1		..BUSHING,SW MTNG:ALUMINUM	80009	358-0660-00
-10	210-0008-00			1		..WASHER,LOCK:INTL,0.02 THK	78189	1208-00-00-0541C
						***** (END ATTACHING PARTS) *****		
-11	358-0674-00			1		..STRAIN RLF,CA:LOWER	80009	358-0674-00
-12	358-0675-00			1		..STRAIN RLF,CA:UPPER		
-13	361-0758-01			1		..SPACER,PROBE:ACETAL,SLATE GRAY	80009	361-0758-01
-14	-----			1		..TERM SET,PIN:(SEE A70J100,200,300 REPL)		
-15	-----			1		..TERM SET,PIN:(SEE A70J301 REPL)		
-16	346-0120-00			2		..STRAP,TIEDOWN:5.5 L MIN,PLASTIC	06383	SST 1.5M
-17	343-1095-00			1		..CLAMP,HYB CKT:0.295 ID,ALUMINUM	80009	343-1095-00
-18	426-1985-00			1		..FRAME,WINDOW:	80009	426-1985-00
-19	386-5017-00			1		..PLATE,PRESSURE:	80009	386-5017-00
	343-1094-00			1		..RETAINER,CONN:SILICON FOAM	80009	343-1094-00
-20	-----			1		..CKT BOARD ASSY:MAIN(SEE A70 REPL)		
-21	-----			1		..CONN,RCPT,ELEC:(SEE A70J126 REPL)		

Fig. & Index No.	Tektronix Part No.	Serial/Model No. Eff Dscont	Qty	1 2 3 4 5	Name & Description	Mfr Code	Mfr Part Number
STANDARD ACCESSORIES							
	070-4345-00		1		SHEET, TECHNICAL: DATA ACQUISITION PROBE	80009	070-4345-00
	020-0720-00		1		ACCESSORY KIT: PKG OF 12	80009	020-0720-00
	012-0747-00		1		LEAD SET, ELEC: 10 WIDE, 25 CML	80009	012-0747-00
	012-0989-00		2		LEAD SET, ELEC: GROUND OR VL SENSE LEAD	80009	012-0989-00
	344-0046-00		2		CLIP, ELECTRICAL: ALLIGATOR, 1.56 L, STL BRT	80009	344-0046-00
OPTIONAL ACCESSORIES							
	003-0709-00		1		EXTRACTOR, 1C: 16 PIN TEST CLIP	80009	003-0709-00
	012-0556-00		1		LEAD SET, ELEC: 10 WIDE, 9.843 L	80009	012-0556-00
	012-0800-00		1		LEAD SET, ELEC: 10 WIDE, 9.843 L	80009	012-0800-00
	012-0987-00		1		LEAD SET, ELEC: 18 WIDE, 5.0 L	80009	012-0987-00
	012-0989-01		1		LEAD SET, ELEC: GRND OR UL SENSE LEAD, 4.0 L	80009	012-0989-01
	012-1000-00		1		LEAD SET, ELEC: 12 WIDE, 10.0 L	80009	012-1000-00
	015-0330-00		1		ADPTR, TEST CLIP: 16 DIP	80009	015-0330-00
	015-0339-00		1		ADPTR, TEST CLIP: 40 DIP	80009	015-0339-00
	015-0339-02		1		ADPTR, TEST CLIP: 40 DIP	80009	015-0339-02
	103-0209-00		1		ADAPTER, CONN: GRIB TO PROBE	80009	103-0209-00
	380-0560-05		1		HOUSING, TERM: MALE ADAPTER	80009	380-0560-05



DIAGRAMS AND CIRCUIT BOARD ILLUSTRATIONS

Symbols

Graphic symbols and class designation letters are based on ANSI Standard Y32.2-1975.

Logic symbology is based on ANSI Y32.14-1973 in terms of positive logic. Logic symbols depict the logic function performed and may differ from the manufacturer's data.

The overline on a signal name indicates that the signal performs its intended function when it is in the low state.

Abbreviations are based on ANSI Y1.1-1972.

Other ANSI standards that are used in the preparation of diagrams by Tektronix, Inc. are:

- Y14.15, 1966 Drafting Practices.
- Y14.2, 1973 Line Conventions and Lettering.
- Y10.5, 1968 Letter Symbols for Quantities Used in Electrical Science and Electrical Engineering.

American National Standard Institute
1430 Broadway
New York, New York 10018

Component Values

Electrical components shown on the diagrams are in the following units unless noted otherwise:

Capacitors = Values one or greater are in picofarads (pF).
Values less than one are in microfarads (μ F).

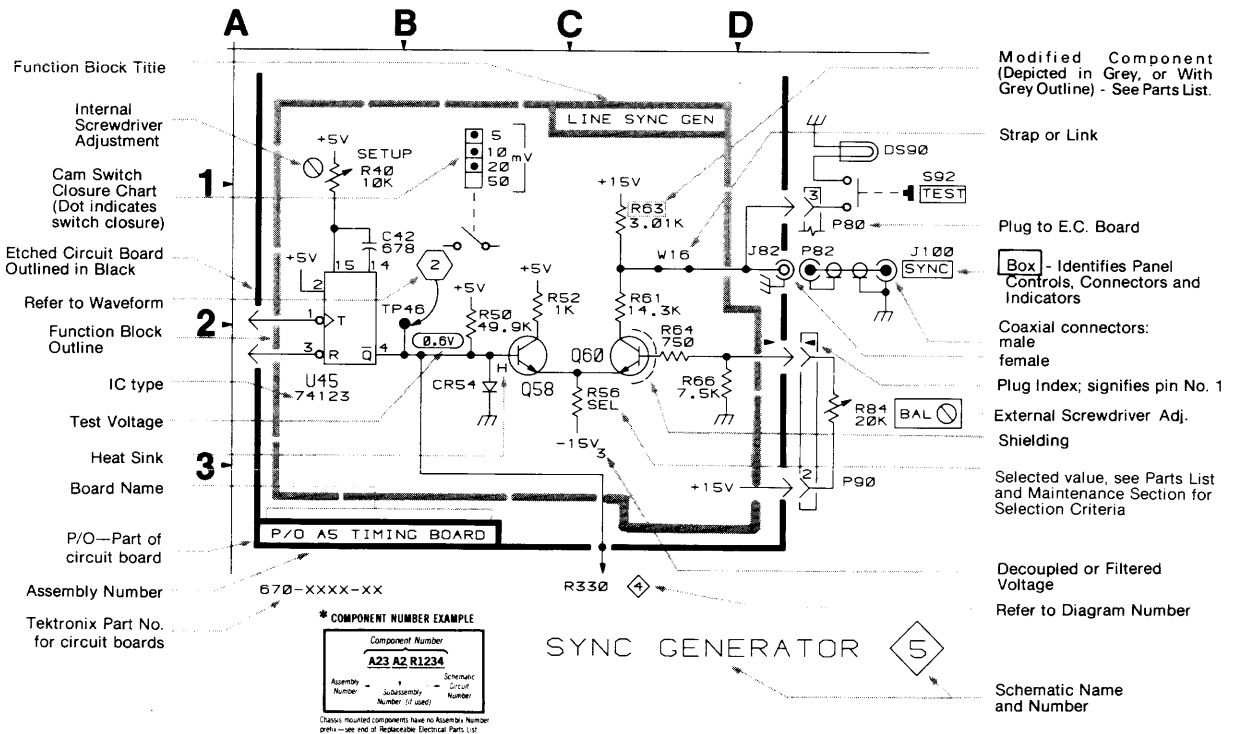
Resistors = Ohms (Ω).

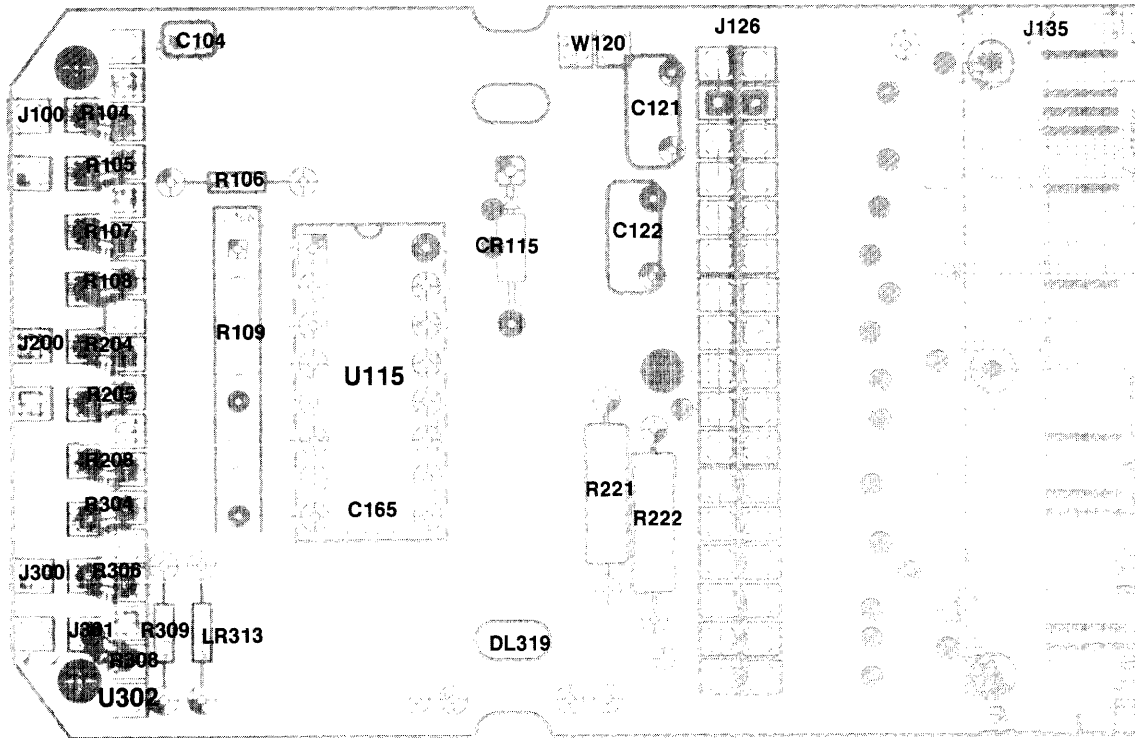
———— The information and special symbols below may appear in this manual. ————

Assembly Numbers and Grid Coordinates

Each assembly in the instrument is assigned an assembly number (e.g., A20). The assembly number appears on the circuit board outline on the diagram, in the title for the circuit board component location illustration, and in the look-up table for the schematic diagram and

corresponding component locator illustration. The Replaceable Electrical Parts list is arranged by assemblies in numerical sequence; the components are listed by component number *(see following illustration for constructing a component number).



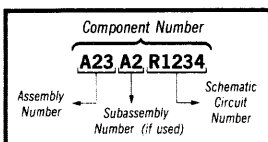


P6460 Board

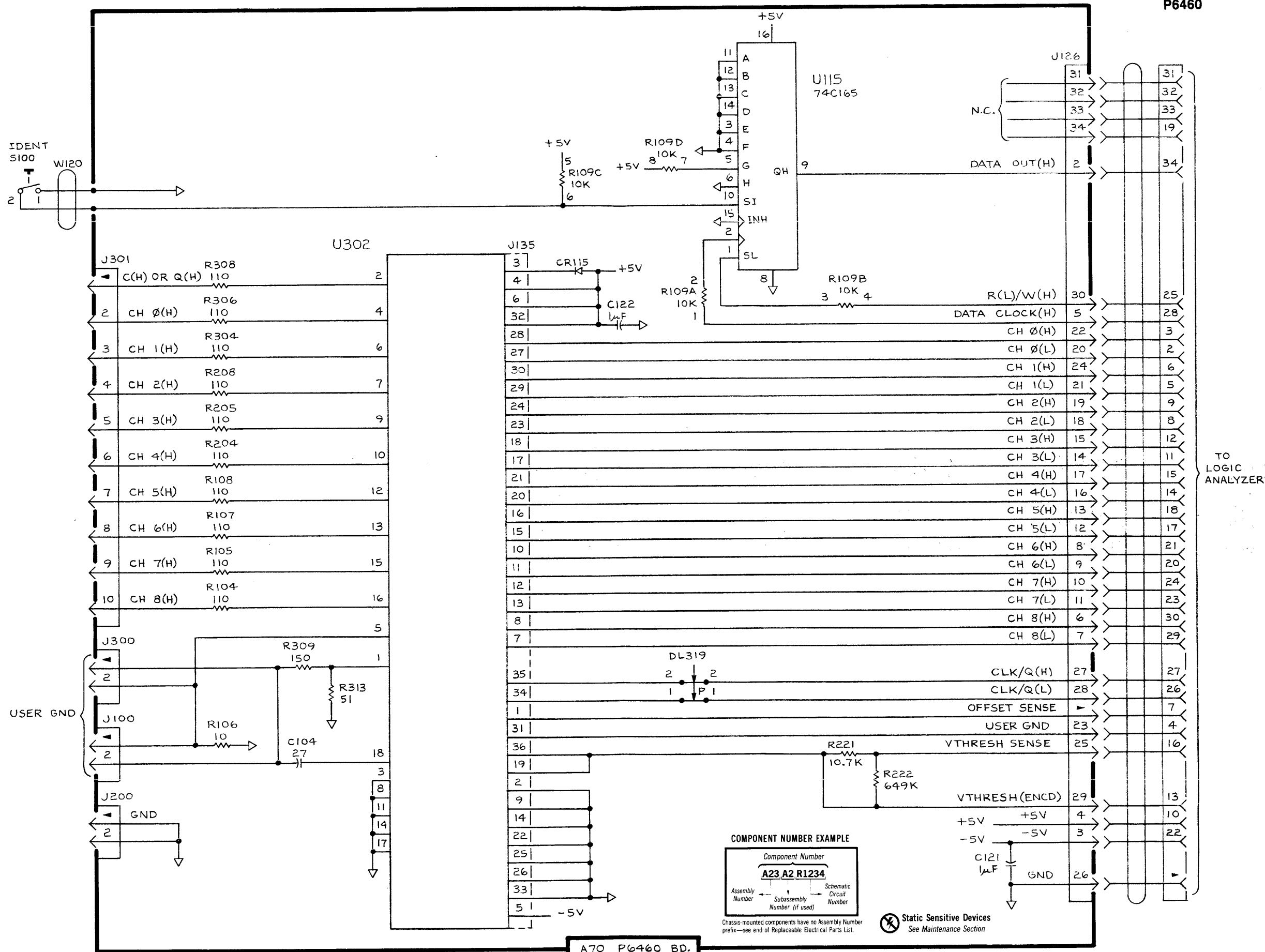
4345-4

 Static Sensitive Devices
See Maintenance Section

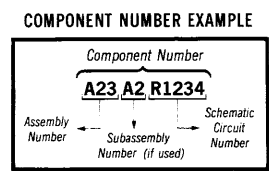
COMPONENT NUMBER EXAMPLE



Chassis-mounted components have no Assembly Number prefix—see end of Replaceable Electrical Parts List.



TO LOGIC ANALYZER



Static Sensitive Devices See Maintenance Section