

2754/2754P

SPECTRUM ANALYZER

VOLUME 2

WARNING

THE FOLLOWING SERVICING INSTRUCTIONS ARE FOR USE BY QUALIFIED PERSONNEL ONLY. TO AVOID PERSONAL INJURY, DO NOT PERFORM ANY SERVICING OTHER THAN THAT CONTAINED IN OPERATING INSTRUCTIONS UNLESS YOU ARE QUALIFIED TO DO SO. REFER TO OPERATORS SAFETY SUMMARY AND SERVICE SAFETY SUMMARY PRIOR TO PERFORMING ANY SERVICE

Please Check for CHANGE INFORMATION at the Rear of This Manual

First Printing JUNE 1986
Revised OCT 1991

Tektronix[®]
COMMITTED TO EXCELLENCE

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

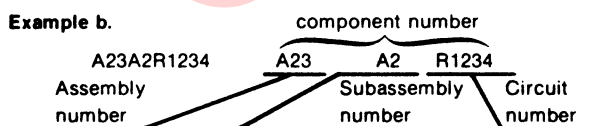
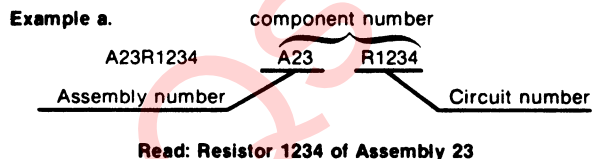
The Mfr. Code Number to Manufacturer index for the Electrical Parts List is located immediately after this page. The Cross Index provides codes, names and addresses of manufacturers of components listed in the Electrical Parts List.

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:



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.

DIAGRAMS AND CIRCUIT BOARD ILLUSTRATIONS

Symbols

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

Logic symbols are based on ANSI/IEEE 91-1984. Logic symbols show the logic function performed and may differ from the manufacturer's data.

Abbreviations are based on ANSI Y1.1-1972.

Other ANSI standards used in diagrams are:

- Y14.15-1966 Drafting Practices.
- Y14.2-1973 Line Conventions and Lettering.
- Y10.5-1975 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).

Assembly and Circuit Numbering

Each assembly and subassembly are assigned assembly numbers. The assembly number appears on the circuit board outline on the diagram, in the title for the circuit board illustration, and in the corresponding lookup table.

The Replaceable Electrical Parts list prefixes the circuit numbers with the corresponding assembly and subassembly numbers.

EXAMPLE: R2080 on assembly A20 becomes A20R2080.

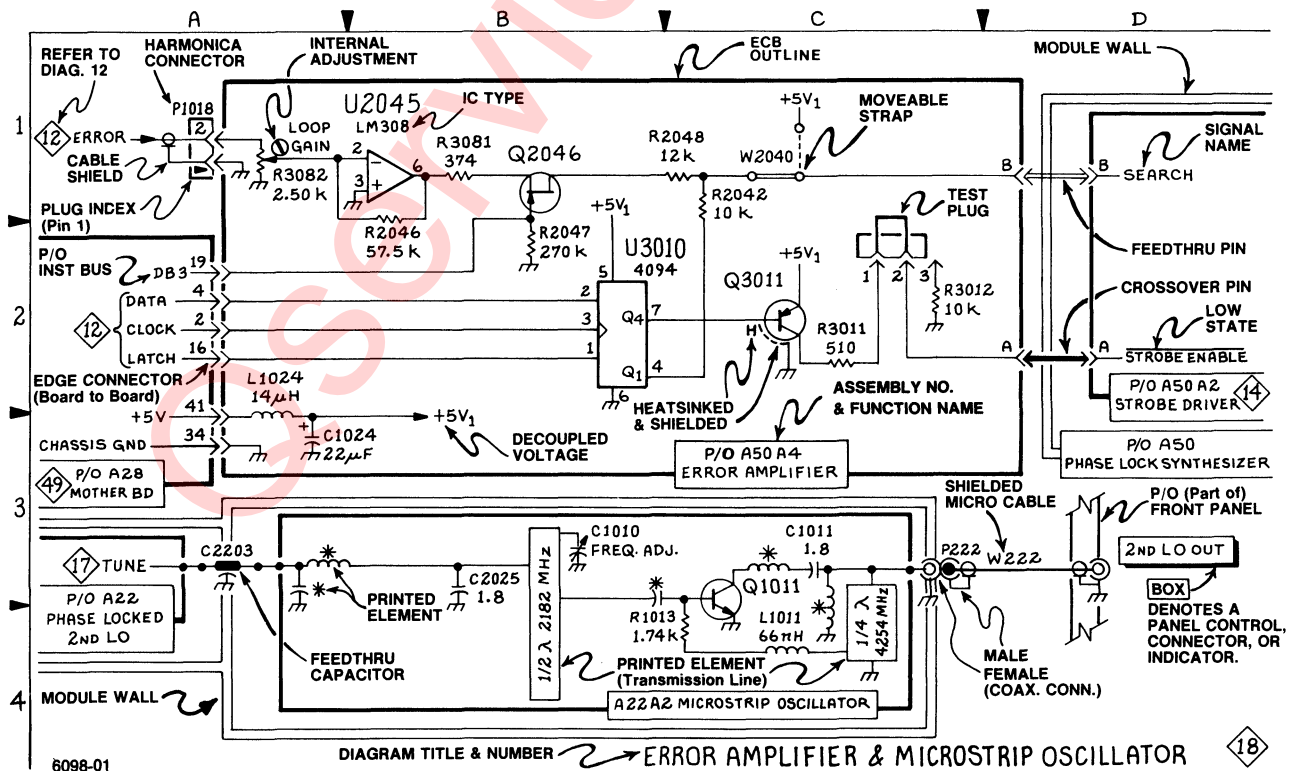
EXAMPLE: U1044 on subassembly A1 of assembly A36 is found in the electrical parts list as A36A1U1044.

Grid Coordinates

The schematic diagrams and circuit board illustrations are labeled with horizontal and vertical grids. Lookup tables with the grid coordinates are provided as a cross reference to help locate components on the corresponding schematic and circuit board.

Sample Diagram

The following sample diagram labels various details found on schematic diagrams.



6098-01

REPLACEABLE MECHANICAL PARTS

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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.

ABBREVIATIONS

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

PHASE LOCKED 2nd LO (16-20 MHz PHASE LOCK)

DIAGRAM 13

ASSEMBLY A22A1

| CIRCUIT NUMBER | SCHEM LOCATION | BOARD LOCATION | CIRCUIT NUMBER | SCHEM LOCATION | BOARD LOCATION | CIRCUIT NUMBER | SCHEM LOCATION | BOARD LOCATION | CIRCUIT NUMBER | SCHEM LOCATION | BOARD LOCATION |
|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| C1012 | B3 | A1 | Q1012 | C3 | A1 | R1073 | E4 | G1 | R2070 | B1 | F2 |
| C1017 | A2 | A1 | Q1023 | B2 | B1 | R1074 | D2 | G1 | R2071 | B1 | G2 |
| C1019 | B2 | A1 | Q1041 | D4 | D1 | R1076 | D2 | G1 | R2072 | B2 | G2 |
| C1026 | E3 | B1 | Q1042 | D3 | D1 | R1079 | D1 | G1 | R2073 | F4 | G1 |
| C1027 | E3 | B1 | Q1043 | D3 | D1 | R1080 | D1 | H1 | R2074 | B1 | G2 |
| C1028 | E2 | B1 | Q1047 | B2 | D1 | R1081 | D4 | H1 | R2075 | B1 | G2 |
| C1029 | E3 | B1 | Q2024 | C3 | B2 | R1082 | D2 | H1 | R2077 | B1 | G2 |
| C1031 | E3 | C1 | Q2076 | B1 | G2 | R1083 | D2 | H1 | R2080 | E4 | H2 |
| C1033 | E3 | C1 | Q2084 | B1 | H2 | R1086 | D1 | H1 | R2082 | B1 | H2 |
| C1034 | F3 | C1 | Q2087 | E1 | H2 | R1097 | F1 | J1 | R2083 | B1 | H2 |
| C1038 | C3 | C1 | Q2096 | E1 | J2 | R2010 | B3 | A2 | R2084 | A1 | H2 |
| C1044 | D4 | D1 | | | | R2011 | B3 | A2 | R2085 | B1 | H2 |
| C1046 | C4 | D1 | R1010 | F2 | A1 | R2012 | B4 | A2 | R2086 | B1 | H2 |
| C1047 | C4 | D1 | R1011 | C3 | A1 | R2013 | B3 | B2 | R2087 | E1 | H2 |
| C1073 | E4 | G1 | R1013 | B3 | A1 | R2014 | C3 | A2 | R2088 | E1 | H2 |
| C1079 | D4 | G1 | R1014 | C3 | A1 | R2015 | B3 | A2 | R2089 | E1 | H2 |
| C1086 | D2 | H1 | R1015 | B3 | A1 | R2016 | B3 | B2 | R2090 | E1 | H2 |
| C1087 | D1 | H2 | R1016 | B3 | A1 | R2017 | B3 | B2 | R2092 | D1 | J2 |
| C1088 | D1 | H1 | R1018 | B2 | A1 | R2018 | B3 | B2 | R2093 | E1 | J2 |
| C2011 | B3 | A2 | R1019 | B3 | A1 | R2019 | B3 | B2 | R2097 | D1 | J2 |
| C2012 | C3 | A2 | R1023 | B2 | B1 | R2020 | B4 | B2 | | | |
| C2015 | B4 | A2 | R1024 | E2 | B1 | R2025 | C3 | B2 | T1091 | D1 | J1 |
| C2016 | B3 | B2 | R1024 | F2 | B1 | R2026 | E2 | B2 | T2092 | D1 | J1 |
| C2019 | B3 | A2 | R1025 | E3 | B1 | R2027 | E2 | B2 | | | |
| C2026 | E2 | B2 | R1026 | E3 | B1 | R2028 | E2 | B2 | TP1019 | B2 | A1 |
| C2030 | E3 | C2 | R1027 | E2 | B1 | R2030 | E3 | C2 | TP1083 | D1 | H1 |
| C2040 | D3 | D2 | R1028 | E2 | B1 | R2031 | E3 | C2 | TP2035 | E2 | C1 |
| C2041 | C2 | D2 | R1029 | E3 | C1 | R2032 | D3 | C2 | TP2037 | D3 | C1 |
| C2043 | D3 | D2 | R1031 | E3 | C1 | R2033 | D3 | C2 | | | |
| C2046 | D3 | D2 | R1033 | F2 | C1 | R2034 | D3 | C2 | U1017 | B2 | A1 |
| C2077 | F4 | G1 | R1034 | F3 | C1 | R2035 | D2 | C2 | U1031 | E2 | C1 |
| C2081 | E4 | H2 | R1035 | F3 | C1 | R2037 | D3 | C2 | U1031 | E3 | C1 |
| C2085 | E1 | H2 | R1037 | C3 | C1 | R2039 | C2 | C2 | U1059 | C1 | E1 |
| C2090 | D1 | H2 | R1038 | C3 | C1 | R2041 | D3 | D2 | U1073A | C1 | G1 |
| C2091 | E1 | J2 | R1039 | C3 | C1 | R2042 | D3 | D2 | U1073B | D1 | G1 |
| C2092 | E1 | H2 | R1040 | C3 | D1 | R2044 | D3 | D2 | U1073 | D4 | G1 |
| | | | R1042 | D3 | D1 | R2045 | D2 | D2 | U2016A | B3 | A2 |
| CR1019 | B3 | A1 | R1043 | D4 | D1 | R2046 | B2 | D2 | U2016B | B3 | A2 |
| CR1086 | D2 | H1 | R1044 | D4 | D1 | R2049 | B2 | D2 | U2031A | E3 | C2 |
| CR1087 | D2 | H1 | R1048 | D4 | D1 | R2051 | C2 | E2 | U2031B | E2 | C2 |
| CR1088 | D2 | H1 | R1051 | C2 | E1 | R2052 | C2 | E2 | U2041A | D2 | D2 |
| CR1089 | D1 | H1 | R1052 | C2 | E1 | R2053 | C2 | E2 | U2041B | D2 | D2 |
| CR2012 | C3 | A1 | R1053 | C2 | E1 | R2054 | C2 | E2 | U2041C | D2 | D2 |
| CR2014 | B3 | A2 | R1054 | C2 | E1 | R2055 | C2 | E2 | U2041D | D3 | D2 |
| CR2015 | B3 | B2 | R1055 | C2 | E1 | R2056 | C2 | E2 | U2059 | B2 | E2 |
| CR2019 | B3 | B2 | R1056 | C2 | E1 | R2060 | C1 | F2 | U2072A | B1 | G2 |
| CR2048 | B2 | D2 | R1060 | C1 | F1 | R2061 | C1 | F2 | U2072B | B2 | G2 |
| CR2084 | B1 | H2 | R1061 | C1 | F1 | R2062 | C1 | F2 | U2072 | E4 | G2 |
| | | | R1062 | C1 | F1 | R2063 | C1 | F2 | | | |
| L1012 | F2 | A1 | R1063 | C1 | F1 | R2064 | C1 | F2 | VR2021 | B4 | B2 |
| L1022 | F2 | B1 | R1064 | C1 | F1 | R2065 | C1 | F2 | W2069 | B2 | F2 |
| L1097 | F1 | J1 | R1065 | C1 | F1 | R2066 | A1 | F2 | W2081 | B2 | H2 |
| L2027 | E2 | B2 | R1070 | C1 | G1 | R2067 | A1 | F2 | | | |
| L2038 | C2 | C2 | R1072 | C1 | G1 | R2068 | A2 | F2 | | | |

