

HUNTRON SCANNER MODEL 31S

USER'S MANUAL

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HUNTRON INSTRUMENTS, INC.

LIMITED WARRANTY

Huntron, Inc. believes in the quality of its products. Accordingly, Huntron provides the following non-transferable warranties for the benefit of the original end-use purchaser of the Huntron Scanner Model 31S instrument.

Huntron warrants that the Huntron Scanner Model 31S hardware shall be free from defects in material and workmanship for one (1) year from the date of purchase.

The above warranties are in lieu of all other warranties, express or implied, including all warranties of merchantability and/or fitness for a particular purpose. Huntron's liability under these warranties, including any damages sustained by the customer through malfunction or failure of the Huntron software, shall not exceed the amount of the purchase price of the Huntron Scanner Model 31S, regardless of the extent of any such damage, including any special, consequential, or incidental damages of any kind.

These warranties shall only apply to products in ordinary use. Huntron shall have no obligation under these warranties with respect to damage caused by accident, transportation, neglect, misuse, unauthorized alterations or repair, improper installation, or operating conditions.

Products purchased in the United States are to be returned to Huntron, Inc. at its factory, transportation prepaid. Products purchased outside the United States are to be returned to the source of purchase for Warranty repair.

Written notice of, and an explanation of the circumstances of, any defect believed to be covered by this agreement shall be provided promptly to Huntron by the customer following discovery of the defect. In satisfaction of its warranty liability, Huntron agrees to take reasonable and prompt action to correct the defect, either by repair or replacement, at its option.

CONTACTING HUNTRON

To obtain information about service, accessories and other products, contact:

Huntron Inc.
15720 Main Street, Suite#100
Mill Creek, WA 98012 USA
Phone: 800-426-9265 or 425-743-3171
FAX: 425-743-1360
E-mail: info@huntron.com
Website: www.huntron.com

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SECTION 1 INTRODUCTION AND SPECIFICATIONS

1-1. INTRODUCTION

The Huntron Scanner Model 31S, shown in Figure 1-1, has been designed as a compatible interface for the Huntron Tracker Model 30. Together, they create an effective test system for component troubleshooting. The Scanner 31S allows faster comparison testing of components and boards by the use of direct cabling and optional IC clip cables for in-circuit ICs (integrated circuits).



Figure 1-1. Huntron Tracker Model 30 and Scanner 31S

1-2. SPECIFICATIONS

The specifications for the Scanner 31S are listed in Table 1-1.

Table 1-1. Scanner 31S Specifications.

ELECTRICAL

Interconnections:

Channels	Number.....	1
Pins	Test.....	64
Connectors	IDC	64 pins

Power Requirements

5Vdc 0.05A

GENERAL

Size.....11.20" W x 1.90" H x 8.50" D
(28,45 cm W x 4,83 cm H x 21,59 cm D)

Weight4.5 lbs., (2.04 kg)

ENVIRONMENTAL

Temperature

Operating.....	59°F to 86°F (15°C to +60°C)
Storage.....	-50°F to 140°F (-58°C to +60°C)
Relative Humidity.....	0 to 50% R.H.

1-3. SAFETY CONSIDERATIONS (*Considérations de sécurité*)

Symbols and Warnings: (Symboles et avertissements:)

The following symbols are used either in this manual or on the unit:

Les symboles suivants sont utilisés soit dans ce manuel ou sur l'appareil:



Protective Ground (Earth) Terminal. **Do not disconnect any protective ground wires.**

Rez de protection (terre). **Ne débranchez pas de fils de terre de protection.**



CAUTION This symbol is used in the user's manual as a warning that improper use could result in unit malfunctioning. For your safety always follow the instructions next to the symbol on the unit and in the manual.

ATTENTION Ce symbole est utilisé dans le manuel de l'utilisateur comme un avertissement que l'usage abusif peut entraîner des dysfonctionnements unité. Pour votre sécurité toujours suivre les instructions à côté du symbole de l'unité et dans le manuel.

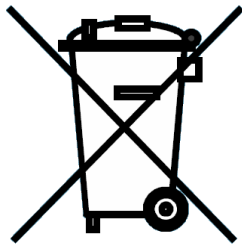
CE The Huntron Scanner Model 31S conforms to the following Standards:

- EN 55011
- EN 61000-3-2:2000
- EN 61000-3-3:1995/A1:2001
- EN 61000-4-2
- EN 61000-4-3
- EN 61000-4-4
- EN 61000-4-5
- EN 61000-4-6
- EN 61000-4-11
- EN 61000-6-1:2001
- EN 61000-6-2:2001
- EN 61000-6-3:2001
- EN 61000-6-4:2001
- EN 61010-1:2001 (Second Edition)



Intertek Meets the Standard for Safety Requirements for Electrical Equipment for Measurement, Control and Laboratory Use; Part 1 General Requirements – UL 61010-1, 2nd Ed., with revisions through 07/22/2005, and CAN/CSA-C22.2 No. 61010-1, 2nd Ed., dated 07/12/2004.

1-4. WEEE AND RoHS



Huntron is aware of the recycling needs for Waste Electronic and Electrical Equipment (WEEE) and Restriction of certain Hazardous Substances (RoHS) and is co-operating with systems established, worldwide for the collecting and recycling of our products.

Huntron has applied the Wheeled bin recycle mark (EN50419) to our products. At the present time, some European countries are not complete in their compliance with the European WEEE legislation and they do not have collective systems fully operational and registration initiated.

Recycling is important to all communities, therefore we ask our customers to be responsible in recycling. Please check your local recycling laws for further information. Further recycling information will be added to our website www.huntron.com as it becomes available.

Huntron products, being electronic test equipment, are classified as monitoring and control instruments and are presently exempt from the RoHS directives. We are working for total compliance to RoHS.

SECTION 2 OPERATING INSTRUCTIONS

2-1. INTRODUCTION

This section describes the basic operation of the Huntron Scanner Model 31S. Throughout the rest of this manual the Huntron Scanner Model 31S will be referred to simply as the Scanner 31S. Take time to read this section carefully so that you can take full advantage of all its capabilities.

2-2. UNPACKING YOUR INSTRUMENT

Your instrument was shipped with the following items:

QTY	DESCRIPTION	HUNTRON P/N
1	CD, Manuals	06-5217
1	40 Pin Clip	07-1230
1	20 Pin Clip	07-1234
1	Getting Started	21-1373
1	Cable 40 Pin Clip	98-0102
1	Cable 20 Pin Clip	98-0103
1	Scanner II Interface Cable	98-0480

Check the shipment carefully and contact the place of purchase if anything is missing or damaged in shipment. If reshipment is necessary, please use the original shipping carton and packing foam. If these are not available, be sure that adequate protection is provided to prevent damage during shipment.

2-3. PHYSICAL FEATURES

Before you begin to use the Scanner I, please take a few minutes to familiarize yourself with the instrument. All of the externally accessible features are shown in Figure 2-1 and summarized in Table 2-1.



1



2

3

Figure 2-1. External Features

Table 2-1. Controls and Connectors.

Item No.	Item	Description
1	Input DB15 Connector	Connection to the Huntron Tracker Model 30.
2	Power Switch	Power switch with indicator.
3	IDC	IDC 64 pin connector to connect UUT.



CAUTION

Use only the a Tracker Model 30 to power the Scanner 31S. Any substitution may damage your instrument and/or result in an unsafe condition.

2-4. SETUP

Note: User should take ESD precautions (wear ground straps) before operating the unit.

The following procedure details how to setup the Scanner 31S with a Tracker Model 30 for in-circuit testing.

1. Connect the Interface cable supplied with your Scanner 31S to the Scanner connector on the back panel of the Tracker Model 30. Connect the other end of this cable to the Input connector located on the back of the Scanner 31S.
2. Turn on the Power Switch on the front panel and the indicator will illuminate.

2-5. TYPICAL APPLICATIONS



CAUTION

The device to be tested must have all power turned off, and have all high voltage capacitors discharged before connecting the Scanner 31S to the device. Failure to do so may cause damage to the Scanner and void the warranty.

This section covers the use of the Scanner 31S and the clip cables supplied.

1. Connect a clip cable to the IDC connector of the Scanner 31S.
2. Connect the clip of the cable to IC on the UUT.
3. Connect the Common test lead from the Tracker Model 30 a common point (i.e. ground) on the UUT.

The topics that follow clarify various points and expand into other areas.

TESTING ICs – To test other sizes of ICs using clips and cables, optional accessories are required. The Thru Hole IC Clip Kit (P/N: 98-0490) provides IDC ribbon cables and DIP IC clips for thru hole DIP ICs. The SMT IC Clip Kit (P/N: 98-0492) provides IDC ribbon cables and DIP IC clips for surface mount SMT DIP ICs.

TESTING OUT OF CIRCUIT COMPONENTS – To test thru hole DIP ICs out of circuit, an optional accessory is required. The ZIF Adapter Board (P/N: 98-0146) provides IDC ribbon cables and ZIF sockets for thru hole DIP ICs.

TESTING CMOS DEVICES - CMOS ICs sometimes produce unstable signatures. Whether the device is in-circuit or out of circuit, if instability occurs it is advisable to connect the 10k Ω resistor jumpers provided with the Tracker Model 30 across the V_{DD} and V_{SS} pins of the device. This will help to reduce or eliminate the unstable signatures. To use the resistor jumpers, select V_{DD} or V_{SS} as the common pin in the normal manner or use common leads.

2-6. EXTERNAL CLEANING



To avoid instrument damage, never get water inside the case or apply solvents to the instrument.

Should the Scanner 31S case require cleaning, wipe the instrument with a cloth that is lightly dampened with water or mild detergent solution.

2-7. STORAGE INSTRUCTIONS

For optimum protection, store unit indoors in a dry place.