

HUNTRON

Huntron Access RF Prober

USER'S MANUAL

P/N 21-2629

**Rev. C
Version 1.1**

November, 2021

Copyright © 2020 Huntron, Inc. All rights reserved.

Huntron and Huntron Access are registered trademarks of Huntron, Inc. All other names are trademarks or registered trademarks of their respective companies.

This document may not be copied in whole or in part, or otherwise reproduced except as specifically permitted under U.S. copyright law, without the prior written consent of Huntron, Inc., 15720 Main Street, Suite#100, Mill Creek, WA, 98012, USA.

**HUNTRON, 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 Access RF.

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

Huntron warrants that the DVD containing the Huntron Workstation software shall be free from defects in material and workmanship for one (1) year from the date of purchase. Huntron further warrants that the software will perform in substantial conformance with the system specifications of the Huntron Access at the time of purchase and for the period of one (1) year thereafter.

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 Access, 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

Table of Contents

SECTION 1 INTRODUCTION	4
1-1 Introduction	4
1-2 Features	4
Hardware Features of the Huntron Access.....	4
1-3 Specifications	6
Specifications of Huntron Access RF Prober	6
Specifications of RF Probe	7
Specifications of the Spectrum Analyzer	7
1-4 Safety Information (Information sur la sécurité)	8
Symbols and Warnings: (Symboles et avertissements)	8
1-5 Environment Conformity Quality.....	10
Environment	10
Conformity.....	10
Quality.....	10
SECTION 2 THEORY OF OPERATION	11
2-1 Introduction	11
2-2 Functional Overview	11
2-3 Stepper Motor Controller	11
2-4 Stepper Motor Drivers	11
2-5 Linear Encoders.....	11
2-6 Vision System	11
2-7 Controls and Signal Connections	12
Safety Stop Switch	12
USB Port.....	12
Z Probe USB	12
Z Probe NFSA Power Jack.....	12
SECTION 3 INSTALLATION.....	13
3-1 Huntron Workstation Software	13
3-2 Installing the Hardware.....	13
3-3 Connecting the Huntron Access to a PC.....	13
SECTION 4 HARDWARE MAINTENANCE	14
4-1 Rail Lubrication.....	14
Procedure	14
4-2 Calibration Requirements	15
4-3 Color Camera Adjustments	16
SECTION 5 SUPPORT ACCESSORIES	17
5-1 Board Spacer	17
5-2 Crossbar	18
5-3 Slide Bar	18
5-4 Slide Bar Extension.....	20
5-5 PCA SUPPORT KIT	21
SECTION 6 TESTING RF	22
6-1 RF Probes	22
6-2 Software.....	22
6-3 Mounting a Board	22
SECTION 7 APPLICATION NOTES.....	23

7-1	Probing Boards with Tall Components.....	23
7-2	Installing a Standard Access Probe Holder	24

SECTION 1 INTRODUCTION

1-1 Introduction

Huntron Access RF probers are universal test fixtures for accessing test points on printed circuit assemblies. The Huntron Access RF provides physical access to fine pitched Printed Circuit Assemblies (PCAs). When combined with any test instrument like a Digitizing multi-meter, Oscilloscope, Signal Generator, LCR meter, Functional Tester, In-circuit Tester, Analog Signature Analyzer or any custom test instrument, the Huntron Access allows test engineers and technicians to test and troubleshoot their difficult and elusive problems on PCAs.

The Huntron Access RF basically consists of three axes which move a test probe along an XY plane. Once the probe reaches an XY coordinate, an up or down Z movement can be initiated so that the test probe is precisely placed over a test point on the target printed circuit board. Each X, Y and Z stage is driven by a separate stepper motor.

The color camera installed on the Z axis displays a high resolution image of the printed circuit assembly on the PC monitor. Using linear encoders and micro-stepping, accurate and repeatable movements can be achieved.

The Access RF system includes RF Near Field Probes and either a Keysight or Rohde&Schwarz Spectrum Analyzer. The system provides the technology to measure the spectrum of EM fields emanating from RF circuitry. A specific position in a Near Field is defined as a Virtual Test Point™ (VTP) where a RF measurement can be made. The combination of a Huntron Access Prober, a spectrum analyzer and Langer RF Probe allows accurate positioning and measurement of VTPs.

1-2 Features

A complete RF measurement workstation consists of a PC, Huntron Access RF, Langer RF near field probes and spectrum analyzer.

Hardware Features of the Huntron Access

- The XYZ stages are stainless steel linear raceways providing an accurate means of moving a light load.
- Uses linear encoders for the X and Y axes which provide feedback for error correction
- The linear stages use fine pitched toothed timing belts which are driven by stepper motors.
- Micro-stepping drivers can micro-step the stepper motors to 4000 steps/revolution allowing a 0.3937 mil or 10 microns resolution. The Micro-stepping mode is automatically selected depending on the distance moved.
- A patented versatile clamping system provides an easy means of clamping the printed circuit assembly so that the moving probe can access either the solder or component side without the need for additional fixtures.

- A camera mounted on the side of the Z axis produces a digitized color image of an area of the printed circuit assembly on the PC monitor. This is a high-resolution color camera with adjustable focus and aperture is used.
- Magnetic proximity limit switches are used to define the “home” position.
- A built-in frame grabber connected to the camera on the side of the Z axis is used to display live images of the printed circuit assembly on the PC monitor. The image is used for camera based learning of alignment points and test points.
- The Base Cover of the system can be removed for convenient access to components and other test points, allowing the printed circuit assembly to be powered by a customer supplied power supply.
- All flexible cables are shielded.
- An emergency STOP switch allows immediate suspension of Huntron Access RF operation.

1-3 Specifications

Specifications of Huntron Access RF Prober

Specification	Huntron Access RF Prober	Comments
Physical Dimensions	36" W, 29" D, 15.7" H (91.44 cm W, 73.66 cm D, 39.88 cm H)	
Max. board-under-test size	22" W by 23" D (55.88 cm W by 58.42 cm D)	Max thickness is 100 mils (2.54mm)
Max board probing area	18.8" W by 20.4" D (47.7 cm W x 51.8 cm D)	Area of the board that the probe can reach without re-adjusting the position of the board.
Max allowable component height	4" H (10.16 cm H)	Measured from the lowest slot
# of PCB guide slots	4	
Max Z Travel	4.21" (10.7cm)	Maximum allowable up/down movement
Linear speed	4 inches/sec (10.16 cm/sec)	Speed in the X or Y direction
Minimum resolution	0.3937 mil (0.0003937") (10 microns)	Minimum allowable movement in the X or Y direction
Probing Accuracy	+/-0.7874 mil (0.0007874") (+/- 20 microns)	Measured over a travel distance of 10" (25.4 cm)
Vision system	CCD 811(H) X 508 (V) Color	
Light Source	White LED array w/adjustable Intensity	
Lens system	25mm Focal Length C mount with adjustable focus and aperture	
Frame Grabber	USB	
Weight	140 lbs (63.64 kg)	Unit only
Mechanical Drive System	6mm wide steel reinforced timing belt Stainless steel linear rails	
Power requirements	115V~ 1.0A 60Hz 230V~ 0.5A 50HZ	
Fuse	T1A 5x20mm 250V	
Probe Connection	Maximum 250V~/3A	
Computer interface	USB 2.0	
Operating temperature	59 degrees F to 86 degrees F (+15 degrees C to +30 degrees C)	
Storage temperature	-58 degrees F to 140 degrees F (-50 degrees C to +60 degrees C)	
Humidity	0 to 50% R.H.	
Linear Encoder	Resolution 0.3937 mils (10 micron)	
Micro stepping	Stepper motor automatically adjusted 4000 micro-steps per revolution	
Z axis weight	Existing 3.7lb Max 5.0lb	Without NFSA Probe
Probe weight	Max 1lb max	Without NFSA Probe
Probe down force	Max 70.5oz max	Without NFSA Probe

Safety considerations	Front panel STOP switch for emergency stop	
-----------------------	--	--

Specifications of RF Probe

For these specifications see the RFProbe Manual

Specifications of the Spectrum Analyzer

For these specifications see the Keysight or Rohde&Schwarz Spectrum Analyzer Manuals

1-4 Safety Information (Information sur la 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 les 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.



This symbol warns the user that spring loaded probe which is mounted on the Z axis is sharp and can scratch or punch the skin.

Ce symbole prévient l'utilisateur que la sonde à ressort qui est monté sur l'axe Z est net et peuvent rayer ou le poinçon de la peau.



This symbol warns the user that this is a pinch point / Crush hazard were the Z axis and X axis move to their limits forward/back and left/right. The user should not have their fingers or hands near this point while the unit is in motion.

Ce symbole prévient l'utilisateur qu'il s'agit d'un point de pincement / écrasement de risque étaient l'axe Z et l'axe X sont à placer aux limites avant / arrière et droite / gauche. L'utilisateur ne devrait pas avoir les doigts ou les mains près de ce point lorsque l'appareil est en mouvement.



The all Huntron Access models conform 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.



Line Fuse Replacement: (Line Remplacement des fusibles)

Voltage Select/Line Fuse tray: The power entry module includes a power switch (0 = OFF, 1 = ON), power cord connector, and a removable tray which selects the line voltage and holds the line fuses.

Tension sélectionner / Line bac Fuse: Le module d'entrée d'alimentation comprend un interrupteur d'alimentation (0 = off, 1 = ON), connecteur cordon d'alimentation, et un plateau amovible qui permet de sélectionner la tension de ligne et détient les fusibles en ligne.

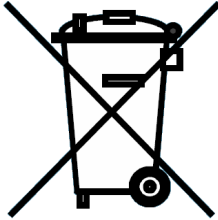
Make sure that replacement fuses are of the type and current rating specified. If necessary, insert a T1A 5x20mm 250V fuse into the fuse tray.

Assurez-vous que les fusibles de remplacement sont de type et leur courant nominal spécifié. Si nécessaire, ajouter un 5x20mm T1A 250V dans le bac à fusibles.

1-5 Environment Conformity Quality

For more information see our website www.huntron.com/corporate/environment.htm

Environment



Huntron is aware of the recycling needs for Waste Electronic and Electrical Equipment (WEEE) 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.



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.

Huntron wants to make sure that old Huntron products are responsibly recycled. As part of that goal, Huntron offers a trade-in for any one used Tracker or Prober when a new Tracker or Prober is purchased. All trade-in products are responsibly recycled. More information on Trade-in program go to www.huntron.com/sales-support/repairpolicy.htm.

Conformity

Huntron products are classified as Category 9 industrial monitoring and control instruments. Our manufacturing processes conform to our standards. These include regulation and directives like RoHS2, REACH and Conflict Minerals. See our Declaration of Conformity to Huntron Quality Standard at www.huntron.com/corporate/docs/conformity.pdf.

Quality

Huntron has been producing quality products and supporting customers all over the world for several decades. Our products conform to our Quality Manual. For information see our Quality Statement at www.huntron.com/corporate/docs/quality-statement.pdf.

SECTION 2 THEORY OF OPERATION

2-1 Introduction

The purpose of this section is to simply explain the functional characteristics of the main components of the Huntron Access RF system.

2-2 Functional Overview

The Test probe on the Z axis is directly connected to the SMA connector located on the back panel. The vision system displays an image of a small area of the printed circuit assembly on the PC monitor for setting up the XY locations of test points.

2-3 Stepper Motor Controller

The Stepper Motor Controller receives ASCII commands from the PC. The controller applies direction pulses for clockwise or counter-clockwise rotation and step pulses at different frequencies to the motor driver.

2-4 Stepper Motor Drivers

The purpose of the Motor Drivers is to supply sufficient and regulated current to each phase of the motor winding. The Motor driver uses micro-stepping, dividing each motor step into fractional steps, thus allowing very small movements useful for accuracy and error correction. Each 0.9 degree step of the stepper motor can be further subdivided into 4000 micro-steps, resulting in a minimum movement of 10 microns or 0.3937 mils.

2-5 Linear Encoders

Linear encoders are used to report to the system the exact location of the Z axis housing which holds the test probe. Optical readers mounted in each axis read the engraved lines on a metal tape. These lines are spaced 10 microns or 0.3937 mils apart. The optical reader automatically outputs signals to the controller, thus reporting its position after every movement. The reported position is then compared to the theoretical position and corrections are made by the control software. The linear encoder serves as the most important function for maintaining accuracy of movements.

2-6 Vision System

The vision system consist of a high-resolution color analog camera mounted on the side of the Z axis. The color camera is capable of 480 lines of horizontal resolution in the NTSC (rs-170) format. It has automatic background compensation, which allows for digital brightness control on low or highlighting conditions. The camera uses a standard 25 mm C mount lens that has aperture and focus control. The aperture and focus adjustments can be locked into position via set screws or knobs.

The color camera output is connected to an internal frame grabber that is connected to the internal USB hub, which is connected to external USB connector.

A Ring light source with intensity control is mounted around the color camera lens. It uses 8 super bright white LEDs, which produce, diffuse and evenly distributed white light.

2-7 Controls and Signal Connections

Safety Stop Switch

The safety stop switch is located on the right side of the Huntron Access RF. Depressing this stop switch will cause all motor movement in the X and Y directions to immediately stop and have their respective power turned off. If the Z axis was in the depressed position (down position), it will automatically move up to its home position, thus relieving any pressure that was put on the board-under-test. The Z motor power will still be on, thus preventing the Z axis from being further depressed due to gravity or other forces. The software will detect that the STOP switch was depressed and will not allow the user to continue operating the unit. The stop switch light illuminated in green indicates that the power is turned on.

The STOP switch can be used for the following purposes:

- ◆ Stop X and Y Motor operations and turn the motor power off.
- ◆ Move the Z probe up to its home position.
- ◆ Interrupt all further instruction from the computer and stop all operations.

USB Port

This USB port is used to connect the Huntron Access to a PC.

Z Probe USB

This USB connector can be used for connecting other USB devices on the Z axis head.

Z Probe NFSA Power Jack

This jack provides 12V power to the Z axis head for optional uses.

SECTION 3 INSTALLATION

3-1 *Huntron Workstation Software*

The Access RF Prober is controlled by Huntron Workstation Software.

Note: For instructions on installing the software, see the Getting Started document that comes with the Huntron Access RF Prober.

3-2 *Installing the Hardware*

1. Locate the unpacking sheet that was supplied with the Huntron Access.
2. Follow the unpacking steps as outlined in the unpacking sheet.
3. Make sure the X axis red stop block, Y axis locking screws and Z Probe locking screw have been removed.
4. Select the Line Voltage: The power entry module includes the power switch (0 = OFF, 1 = ON), power cord connector, and a removable fuse tray which selects the line voltage and holds the line fuses. If the correct voltage is not selected, open the tray door, remove the fuse tray. Turn the fuse tray over and reinsert and close the door. The correct voltage should be visible when the tray door is closed.

3-3 *Connecting the Huntron Access to a PC*

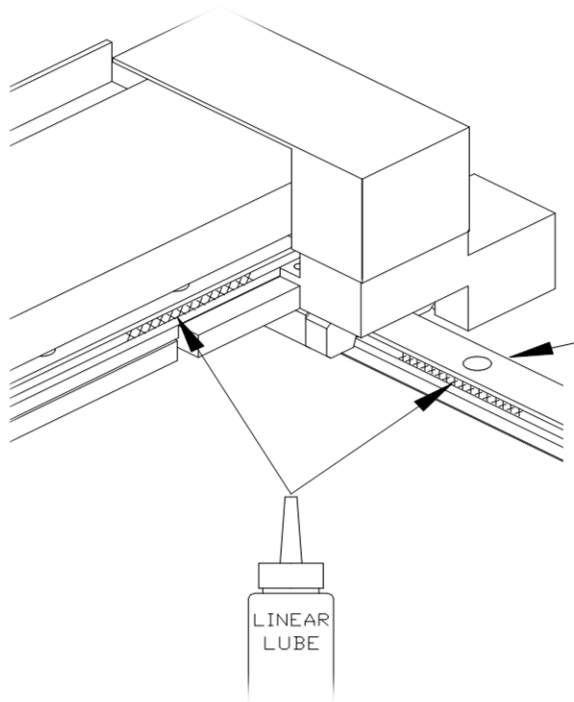
Connect the USB cable to the USB port on the Huntron Access RF. Connect the other end of the USB cable to an available USB port on the computer.

Follow the instructions for installing Huntron Workstation, support software and software drivers listed on the Getting Started document supplied with this system.

SECTION 4 HARDWARE MAINTENANCE

4-1 Rail Lubrication

The rails should be lubricated once a month.



Warning: The linear raceways have to be lubricated using the supplied linear lube (Huntron Part Number 98-0116) which is included in your Tool kit. Do not use with any other lubricant.

Procedure

1. Lubing Y Rail Slide Bearings

Warning: Keep Linear Lube away from the gold encoder tape located on the outside of the left wall. If Linear Lube or dirt get onto encoder tape it can be cleaned with a lint free cloth and alcohol.

- a. Wipe clean the rail surfaces with a lint-free cloth.
- b. Move the Z Head to the center & back.
- c. Apply a 1/2" bead of Linear Lube in the grooves of each Y rail. Move front to back 4 times.
- d. Repeat step "b" 3 times.
- e. Wipe down Y rails, especially the ends as the oil cleans out the rail slides.

2. Lubing X Rail Slide Bearings

Warning: Keep Linear Lube away from the gold encoder tape located behind the X rail mounted on the encoder plate. If Linear Lube or dirt get onto encoder tape it can be cleaned with a lint free cloth and alcohol.

Wipe clean the rail surfaces with a lint-free cloth.

- a. Move the Z Head to the back & center.
- b. Apply a ½” bead of Linear Lube in the grooves of each side of the X rail. Move left to right 4 times.
- c. Repeat step “b” 3 times.
- d. Wipe down X rail, especially the ends as the oil cleans out the rail slides.

3. Lubing Z Rail Slide Bearings

- a. Move the Z Head to the front & center.
- b. Pull the Z probe in the full down position.
- c. Wipe clean the rail surfaces with a lint-free cloth.
- d. Apply a ¼” bead of Linear Lube into the grooves of the Z rail towards the top. Move up and down 4 times.
- e. Wipe off Z Probe cleaning off excess Linear Lube.

4-2 Calibration Requirements

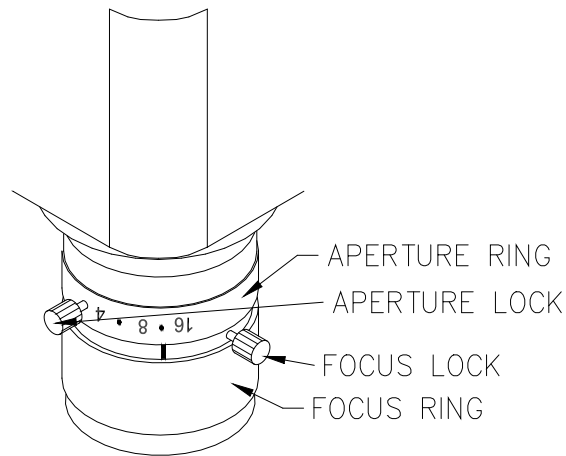
There are user calibration requirements. The unit is factory aligned and does not need calibration.

Removing or loosening screws on the mechanical parts of the Access RF Prober can affect movement accuracy.

If the unit is not moving accurately, please call Huntron Technical Support for further instructions.

4-3 Color Camera Adjustments

The camera lens on the color camera has a separate focus and aperture adjustment ring. These adjustment rings can be locked via a locking screw. The aperture setting is factory set and will be in the locked position. The setting is shown below. If the camera image appears dark even with maximum light intensity, it may be necessary to adjust the aperture. By using a larger aperture, more light will enter the lens but the depth of field will be smaller. Components at various heights will appear unfocused. The best setting is to have the smaller aperture (i.e. F8 or higher) and some external, bright, evenly distributed light. A small florescent lamp would be sufficient as an additional external light source.

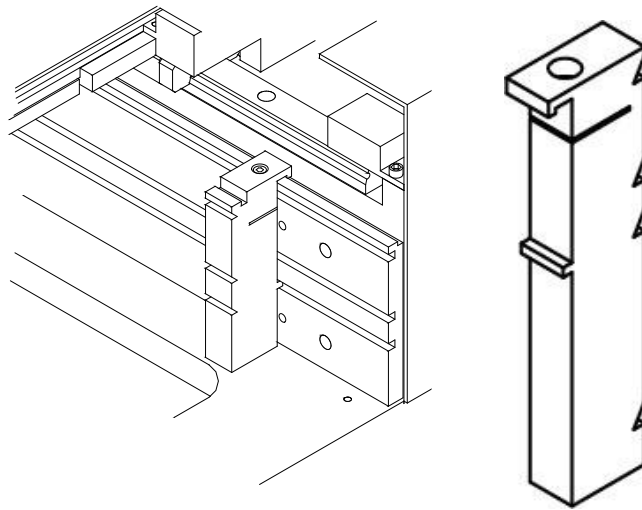


*Note: Changing the Focus or Aperture may cause the distance from the center of the probe to the center of the camera to change. Always perform a Camera Offset after making Focus or Aperture adjustments. **When performing Camera Offset always have the aperture set to the lowest setting of 1.4 when focusing.** You can set it to a higher f-stop (f8 or higher works well) once Camera Offset is complete.*

SECTION 5 SUPPORT ACCESSORIES

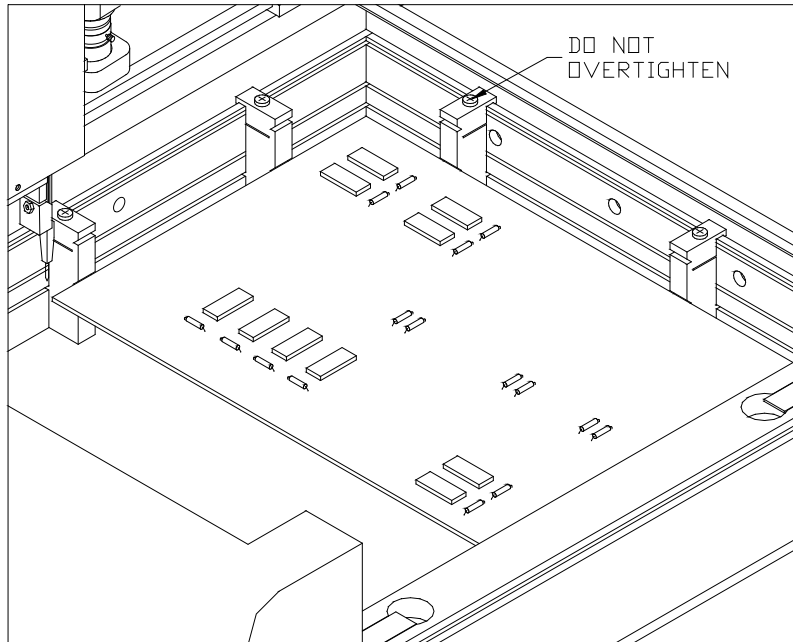
This section describes the test board support accessories for use with a Huntron Access. These accessories are used in various combinations to hold different types of boards in the Huntron Access. The description of each accessory includes an illustration and some examples of typical uses.

5-1 Board Spacer



Board Spacer for Access RF p/n 98-0292

The part number for the board spacers for a Huntron Access RF is 98-0292. These spacers are longer and have 4 slots (part may appear different than the image).

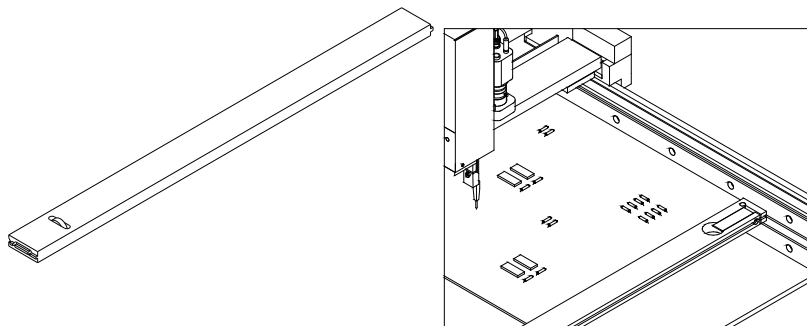


Board Spacers move the test board away from the slotted walls. The Huntron Access RF can only probe components that are approximately 0.6" (15mm) away from the slotted walls of the Huntron Access.

Board Spacers snap onto and slide along the slotted walls. They allow the probing of components on the edge of boards and the supporting of boards with protruding components.

5-2 Crossbar

The Crossbar is normally used to hold the front side of the test board. Two crossbars are included with the Access RF Prober.

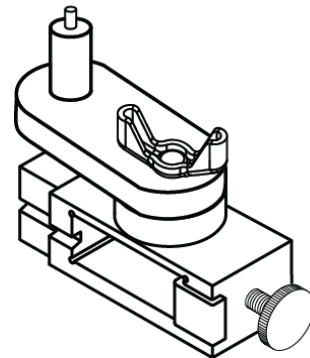
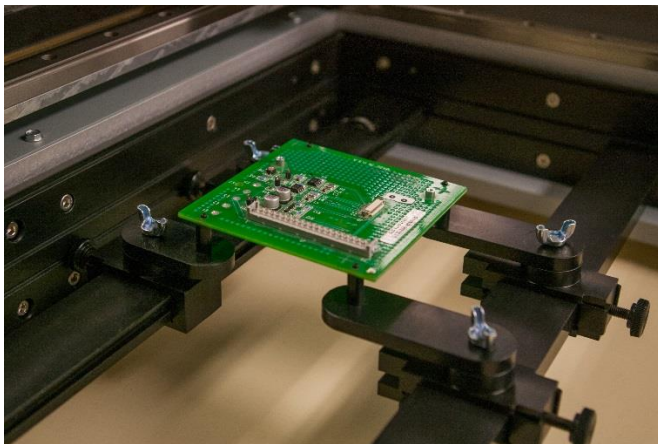
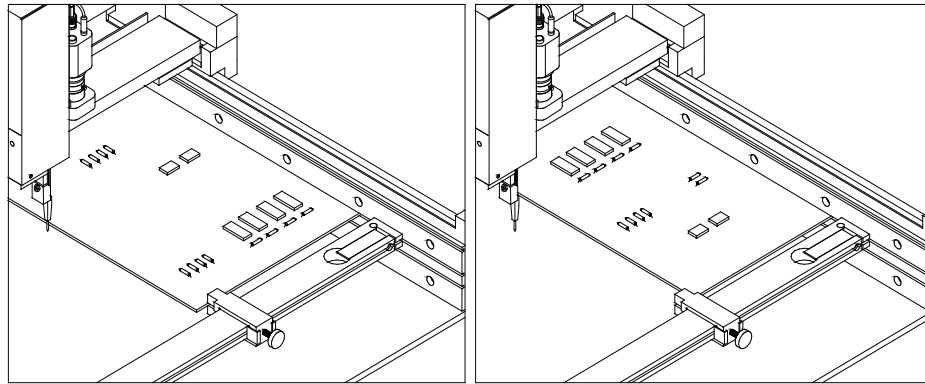


Cross Bar for Access USB P/N 98-0119

The part number for the Crossbar for a Huntron Access RF is 98-0119.

5-3 Slide Bar

The Slide Bar mounted on a Crossbar holds the left front corner of the Printed Circuit Assembly. The front of a Slide Bar on a Crossbar can hold the test board away from the Crossbar to allow components on the front edge of the board to be reached by the probe tip. Use a Slide Bar and a Slide Bar Extension mounted on a Crossbar to hold the unsupported side of the test board. (4 Slide Bars included)



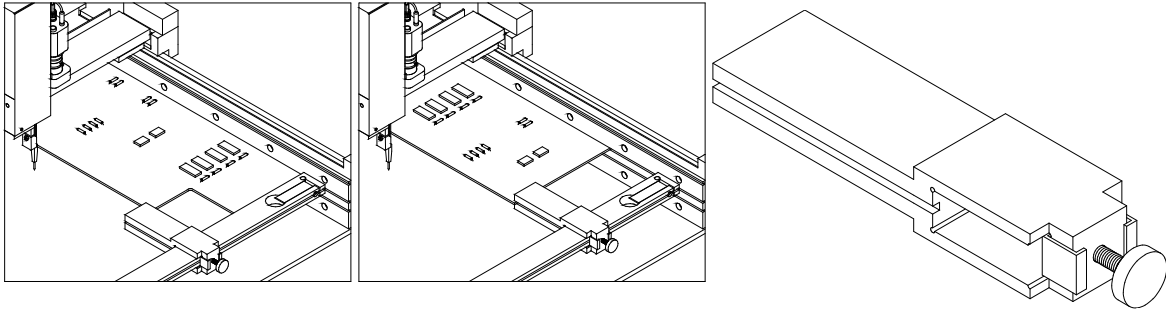
Slide Bar P/N 98-0685 supplied with adjustable arms

These slide bars can be flipped over and have adjustable arms added. Support pins can be attached to the arms so a PCB can be mounted using mounting holes (see image above). This configuration has the two crossbars secured into the Bottom slot level and the mounted PCB positioned at the Top slot level.

5-4 Slide Bar Extension

The Slide Bar Extension mounted on a Crossbar can hold the unsupported side of the test board. The Slide Bar Extension can also be configured with a Slide Bar for additional support of the side of the test board.

(1 Slide Bar Extension is included, 2 are included in NFSA Models)



Slide Bar Extension P/N 98-0132

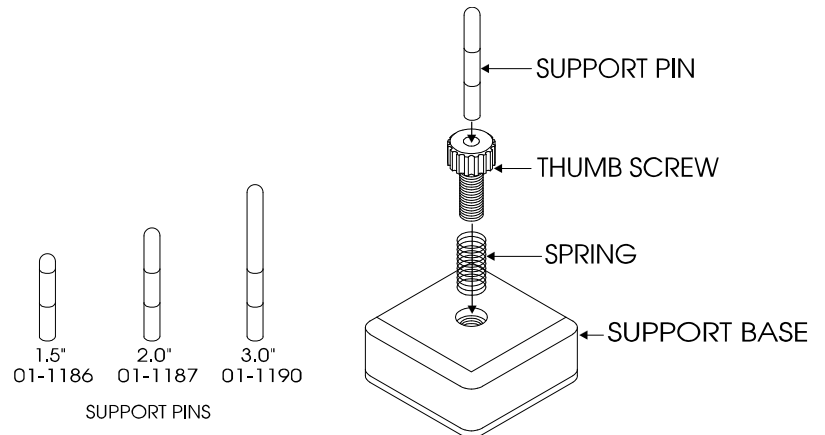
5-5 PCA SUPPORT KIT

Two blocks are included in the kit. The block can hold three different length pins which are used to prevent large boards from flexing. (1 PCA Support Kit is included with the Huntron Access 2 Models)

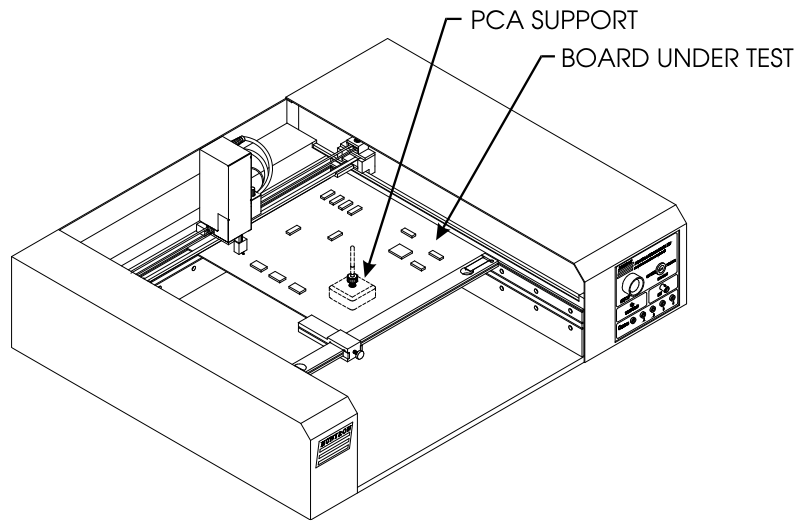
The 3" pin is used for boards mounted in the top slot.

The 2" pin is for the middle slot.

The 1.5" pin is for the bottom slot.



1. Insert pin with spring.
2. Place under board.
3. Rotate thumb screw to adjust pin height.



SECTION 6 TESTING RF

6-1 RF Probes

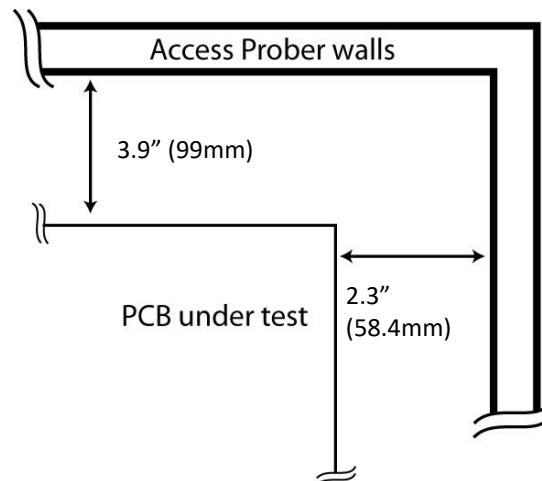
For information about the RF Probes refer to the Langer RF Probes Manual.

6-2 Software

For information about building test and software features for the Access RF Prober refer to the Access RF Software Tutorial and the Huntron Workstation Help/Manual.

6-3 Mounting a Board

The PCB under test can be mounted into the Access RF Prober at one of four levels – Top, Middle, Bottom and Base. It is important that the PCB be mounted precisely at one of these levels to ensure proper accuracy. The figure below illustrates the minimum PCB edge to Prober wall distances:



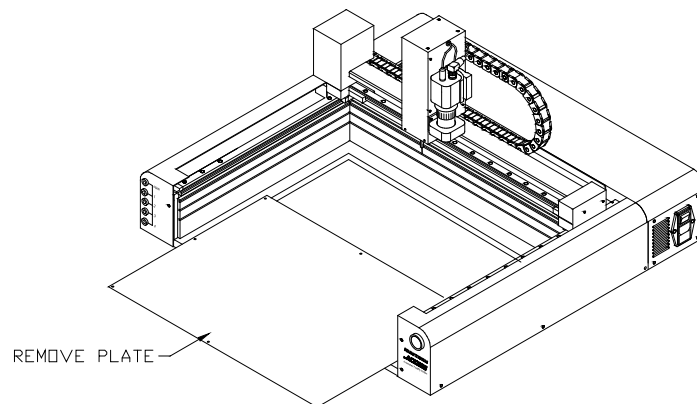
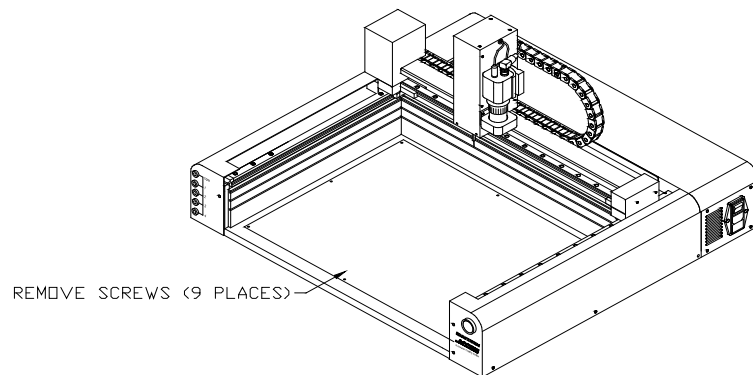
SECTION 7 APPLICATION NOTES

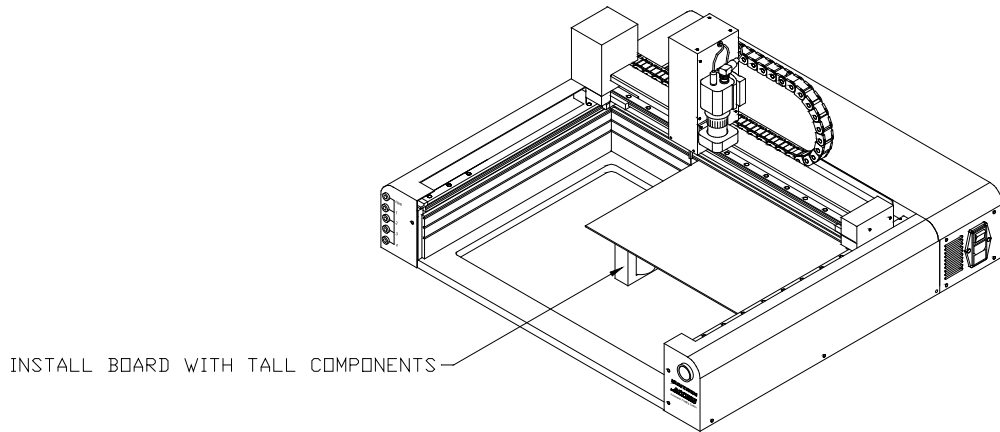
7-1 Probing Boards with Tall Components

Some boards have components like capacitors, heat sinks and transformers that are more than 3 inches high. Probing the component side of these boards is difficult due to the limited Z axis up/down travel. These boards have to be probed from the opposite side. However, the component may be in the way when you try to clamp the board into the slot.

The Huntron Access RF has an additional cutout in the base plate. This allows for additional clearance for the large components.

Remove the base cover as shown below. Mount your board so that the large components are now positioned inside the cutout.





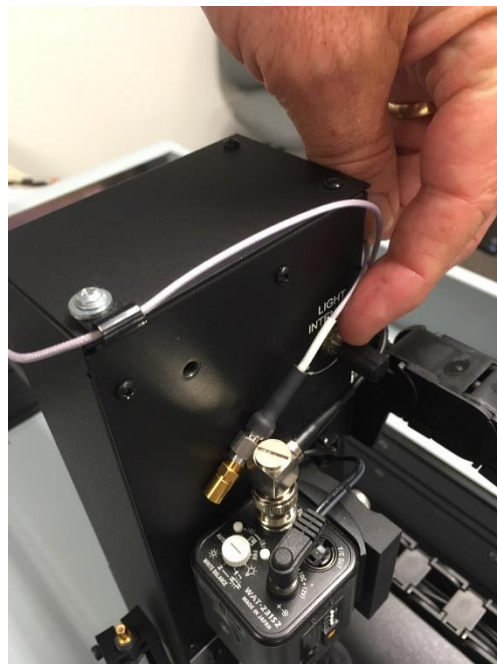
Sometimes, the power and interface connections to the board-under test is difficult. The additional clearance may also make it easier to access these connections.

7-2 *Installing a Standard Access Probe Holder*

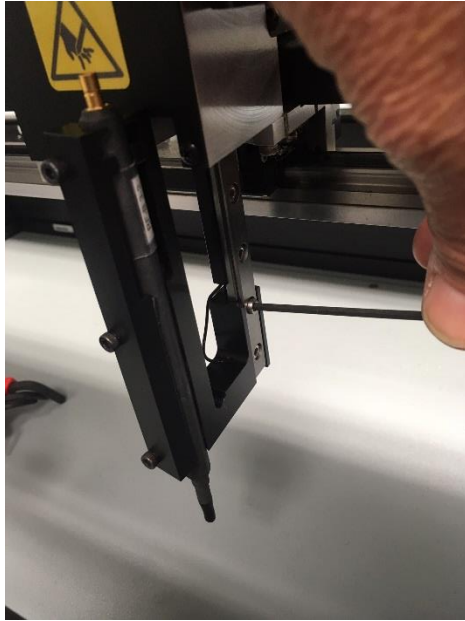
The Access RF Prober is designed to be able to use a different probe style for testing with Huntron Trackers or supported DMMs that require contact testing. To utilize this function the RF Probe holder needs to be removed and a standard Access probe holder installed. The standard Access probe holder uses common spring probes as the test pin and is included in the Access Probe Kit.

Removing the RF probe holder

Start by unplugging the coax RF cable from the RF probe and tucking it away within the cables at the top of the Z head.



Using a 2.5mm hex key wrench, remove the screws attaching the RF probe holder to the Z axis rail.



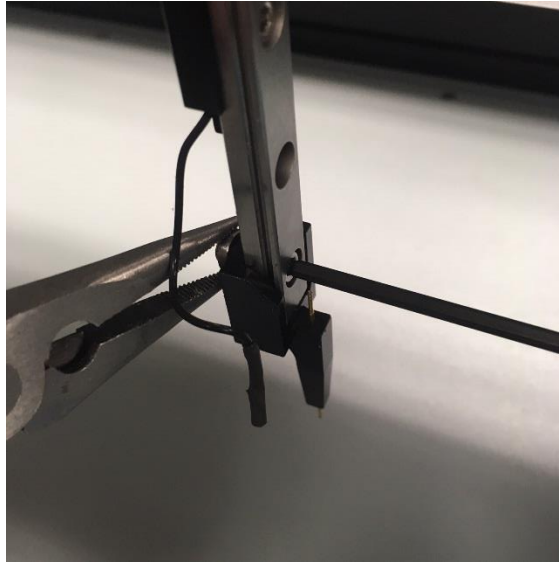
Pull gently down on the RF probe holder to remove it from the Z axis rail.

Installing the Standard probe holder

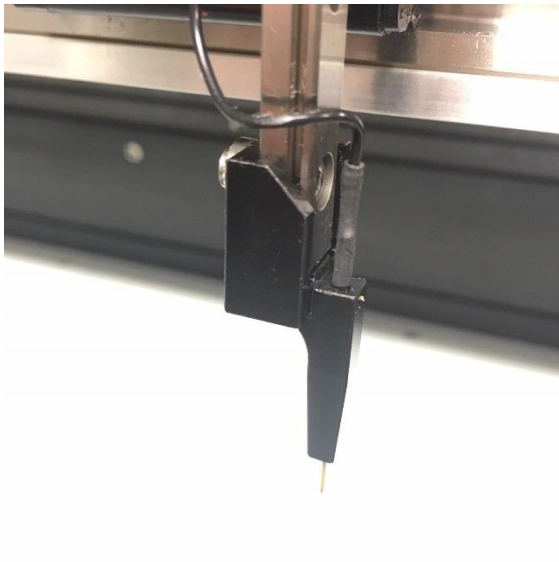
To install the standard probe holder, insert the upper portion of the holder onto the end of the Z axis rail as shown in the image below.



Insert the hex screw and fasten the nut on the back side of the probe holder. Hold the nut with a wrench or pliers as you tighten the bolt.



Connect the blue prober signal wire to the pin at the top of the standard probe holder. Insert your probe pin of choice from the probe holder kit.



Reverse the above steps to reinstall the RF probe holder. Be sure to use the small retaining hole to keep the signal wire in place.

