



OPTOTRAK PROseries ScanTRAK User Guide

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IMPORTANT

This guide is a supplement to the "*OPTOTRAK PROseries System User Guide*". You must read the "*OPTOTRAK PROseries System User Guide*" and this document before using ScanTRAK.



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Read Me First

Read this section before continuing.

Warnings



In all NDI documentation, warnings are marked by this symbol. Follow the information in the accompanying paragraph to avoid personal injury.

1. Read the ScanWorks documentation for important safety information regarding the V5 sensor before using it with the OPTOTRAK PROseries System. Failure to read all relevant information from the manufacturer could result in equipment damage and/or personal injury.
2. Disconnect the ScanTRAK Cabinet and Optical Tracker from their power sources before cleaning the equipment or changing fuses. Failure to disconnect the System Controller and Optical Tracker may result in personal injury.
3. Unless otherwise stated, there are no user-serviceable parts in the OPTOTRAK PROseries System. Any servicing or disassembly must be performed by trained technicians or referred to NDI. Unauthorized servicing or disassembly will void your warranty and could result in equipment damage and personal injury.

Cautions

Caution! In all NDI documentation, cautions are marked with the word "Caution!". Follow the information in the accompanying paragraph to avoid damage to equipment.

1. Do not plug the MSP connector directly into the MSP probing port on the OPTOTRAK Controller. Use the MSP extension cable to connect the MSP connector to the MSP probing port. Failure to use the MSP extension cable for probing operation will result in equipment damage.
2. Do not cover the openings on the Optical Tracker or ScanTRAK Cabinet when the system is powered on. Obstructing ventilation will restrict airflow, which will cause equipment damage and affect measurement accuracy.
3. Do not forget to disconnect the V5 sensor from the OPTOTRAK Controller when you place the V5 sensor on its stand. Otherwise, you may accidentally drag or drop the V5 sensor, resulting in equipment damage.
4. The Optical Tracker requires a warm up time to stabilize. See the “*OPTOTRAK PROseries System User Guide*” for warm up guidelines. Failure to allow the Optical Tracker sufficient time to warm up may affect the accuracy of your measurements.
5. Using a stylus assembly that has not been qualified will produce inaccurate measurements.

6. Do not use alcohol or thinners to clean ScanTRAK equipment as they may damage the finish and symbols.
7. Do not leave any of the calibration sphere stem data in the Scan Pass Calibration data file before saving it. Failure to remove all of the stem data will affect the accuracy of your measurements.
8. Do not apply a correction mode using the Dynamic Part Referencing Utility after you have started a scanning session. Correction modes do not affect scanning data collected prior to the target survey and mode application. Uncertainty regarding the alignment of scanned data can lead to significant measurement errors.

1 ScanTRAK Overview

This guide describes how to use and configure the OPTOTRAK PROseries ScanTRAK Advanced Handheld Laser Scanning System. For information about other OPTOTRAK PROseries components, see the appropriate documentation binder tab.

1.1 Optical Tracker

The Optical Tracker is the device that tracks targets. See the “*OPTOTRAK PROseries System User Guide*” in this binder for a detailed description of the Optical Tracker.

1.2 Multi-Sided Probe

When detached from the V5 sensor, the Multi-Sided Probe (MSP) can perform probing functions with an attached stylus assembly.



Figure 1-1 Multi-Sided Probe

Targets Targets are tracked by the Optical Tracker.

Quick Release Secure the MSP to the V5 sensor or a stylus assembly.

Electronic Mount Provides an attachment point for supported devices.

Supported Device Supported devices, such as stylus assemblies and the V5 sensor, connect to the MSP’s electronic mount.

MSP Connector Connects to the MSP scanning port on the V5 sensor grip during scanning operation, or to the MSP extension cable during probing operation.

1.3 V5 Sensor with Grip

The laser scanning component of the ScanTRAK system is the V5 sensor with ergonomic grip. The MSP attaches to the mount point on the grip and assembled tool is called the ScanTRAK scanner.

See the ScanWorks® documentation for detailed information about the V5 sensor, including helpful scanning advice.

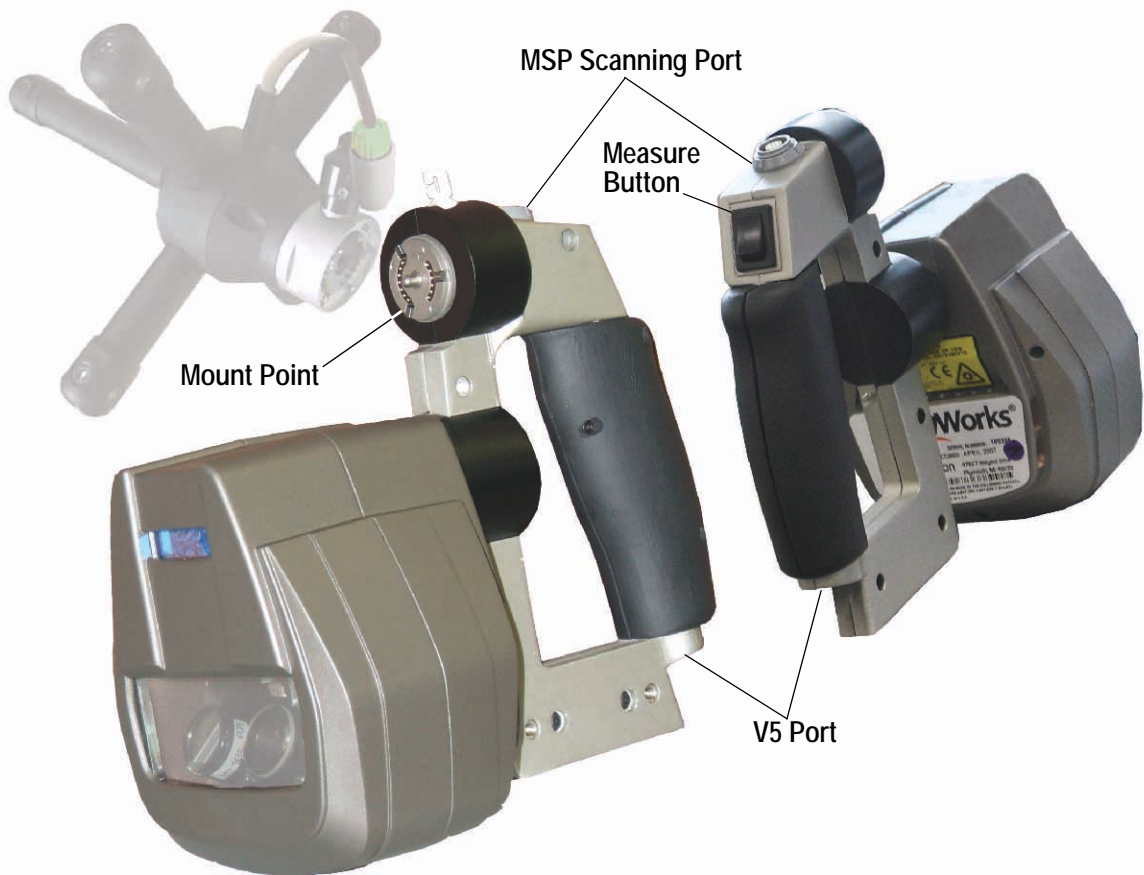


Figure 1-2 V5 Sensor with Grip

Mount Point This connects to the MSP's electronic mount for scanning operation.

MSP Scanning Port This port connects to the MSP connector for scanning operation.

Measure Button The first time you press the **Measure** button it begins a scanning session. Once a scanning session begins, pressing the **Measure** button starts and stops individual scan passes. Holding down the **Measure** button ends a scanning session.

V5 Port This connects the V5 cable to the V5 port on the OPTOTRAK Controller.

1.4 OPTOTRAK Controller

Note The OPTOTRAK Controller provides multiple functions. Only those functions, indicators, connectors etc., that are applicable to ScanTRAK are described in this guide.

The OPTOTRAK Controller provides communication to the MSP and V5 sensor.



Figure 1-3 OPTOTRAK Controller

MSP Probing Port Connects to the MSP extension cable for probing operation.

Wireless Status Light Indicates the wireless communication as follows:

- **off** when not communicating (wireless mode) or system is in wired mode
- **green** when communicating in wireless mode
- **flashing red** wireless communication is interrupted

MSP Status Light Indicates the condition of the MSP when connected directly to the OPTOTRAK Controller via the MSP extension cable. The indications are as follows:

- **off** when the OPTOTRAK Controller is not connected to the MSP or if the MSP is not initialized
- **amber** when the MSP is initialized after connecting to the OPTOTRAK Controller's MSP probing port, via the MSP extension cable
- **green** when the MSP's targets are activated and the system is ready to track

Power Light Indicates the power status as follows:

- **off** when the OPTOTRAK Controller is not connected to the ScanTRAK Cabinet
- **green** when OPTOTRAK Controller is connected to the ScanTRAK Cabinet

Measure Button Executes an action when pressed, such as taking a measurement point. It also mimics the functions of the **Measure** button on the V5 sensor grip during scanning operation. When the MSP is probing in continuous point measurement mode, press the **Measure** button once to begin taking points and again to stop taking points. Press and hold the **Measure** button to end feature

Undo Measure Button Acts as an “undo” from the **Measure** button. When using the MSP as a probe (connected to the OPTOTRAK Controller, via the MSP extension cable) press and hold the **Undo Measure** to change mode. (Mode is from single point to continuous point mode. Only applicable with the continuous point mode option.)

ScanTRAK Port Connects to the ScanTRAK cable coming from the collector port on the ScanTRAK Cabinet. It is used for both scanning and probing operation.

V5 Port Connects to the V5 cable coming from the V5 port on the sensor grip for scanning operation.

1.5 OPTOTRAK ScanTRAK Cabinet

The ScanTRAK Cabinet is the central connection point for the major system components.

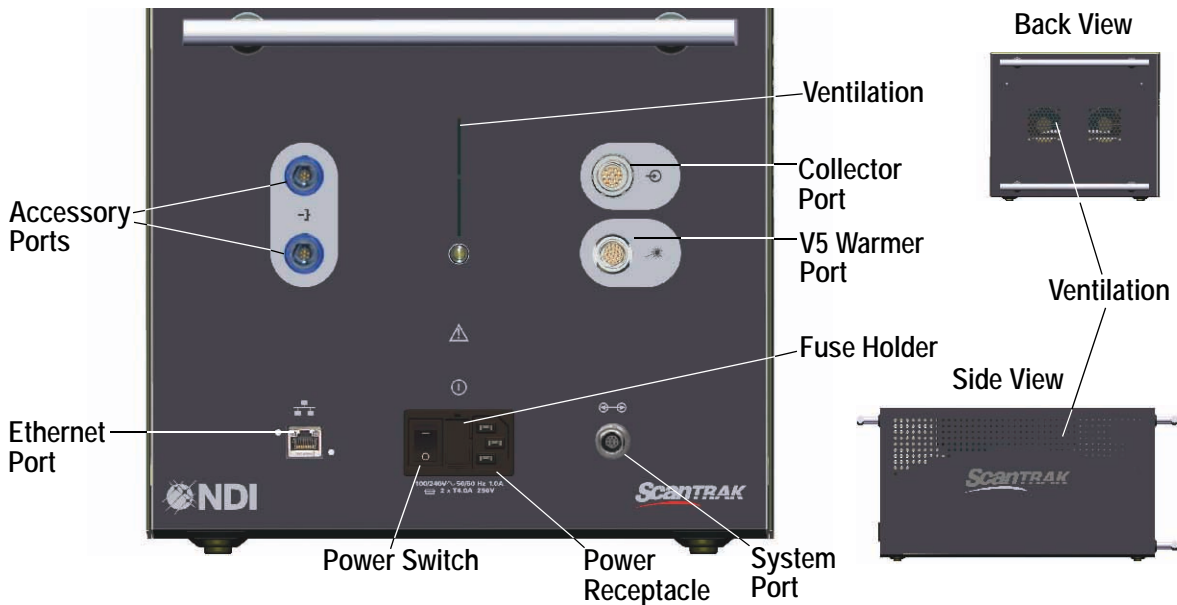


Figure 1-4 OPTOTRAK ScanTRAK Cabinet

Accessory Ports These ports connect to accessories such as probes and target controllers.

Ethernet Port This port connects to an Ethernet cable to provide communication with the host computer. The RJ45 Ethernet connection operates at 10/100 Mbps.

Ventilation These openings provide airflow inside the ScanTRAK Cabinet.

Caution! Do not cover the openings on the Optical Tracker or ScanTRAK Cabinet when the system is powered on. Obstructing ventilation will restrict airflow, which will cause equipment damage and affect measurement accuracy.

Fuse Holder This contains two type T4.0A, 250V fuses.

Power Receptacle This receptacle connects to the power cable coming from the AC mains power. The power regulation circuit inside the ScanTRAK Cabinet is self-switching. It requires an AC power supply which provides power between 100 and 240 V AC at 50 - 60 Hz.

Collector Port This connects to the ScanTRAK cable coming from the collector port on the OPTOTRAK Controller.

V5 Warmer Port This keeps the V5 sensor powered while the MSP is being used for touch probing. It connects to the V5 cable.

System Port This connects to the system cable to provide communication with the Optical Tracker.

1.6 ScanTRAK Stand

The ScanTRAK Stand houses the V5 sensor, when not in use.

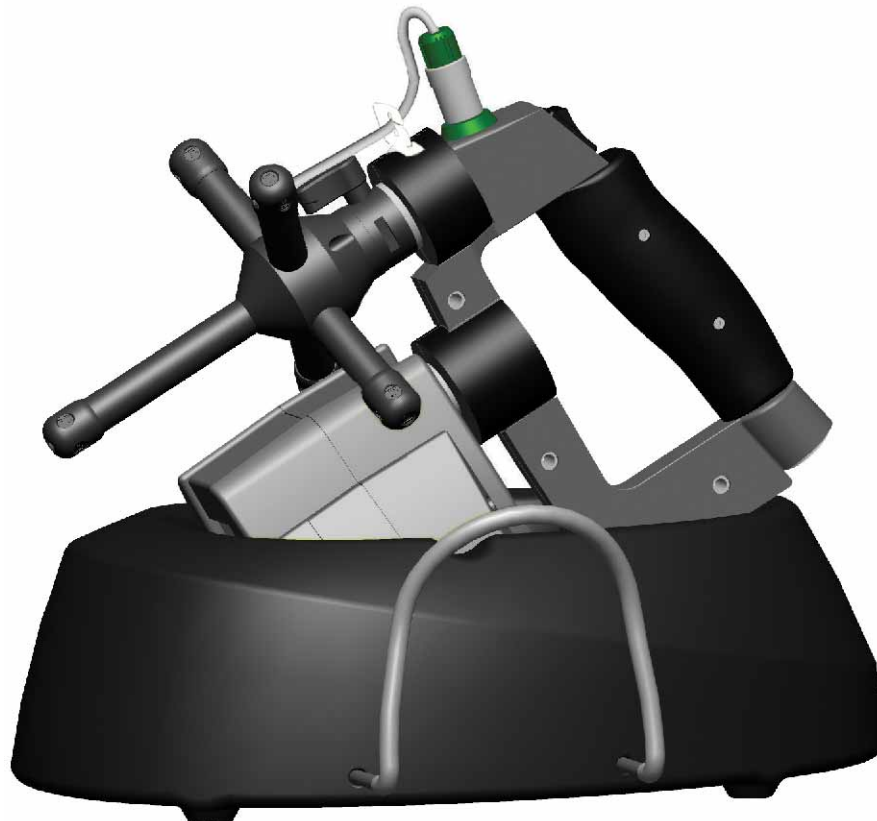


Figure 1-5 ScanTRAK Stand

2 ScanTRAK Setup

2.1 Host Computer Setup and Software Installation

See the *OPTOTRAK PROseries System User Guide* for information about setting up the host computer and installing NDI and third-party software.

2.2 Standard Component Connections

This section outlines component connections that are standard for both scanning and probing.

1. If the Optical Tracker has not already been unpacked and mounted, remove the Optical Tracker from the box using the transportation handles on each end mount.
2. If not already mounted to a stand or other fixture, place the Optical Tracker on a stable surface and connect cables as shown in Figure 2-1.

Note For information about mounting the Optical Tracker using third-party equipment, see the documentation that came with your mounting equipment. For information about mounting the Optical Tracker with NDI equipment, see the appropriate tab in this documentation binder.

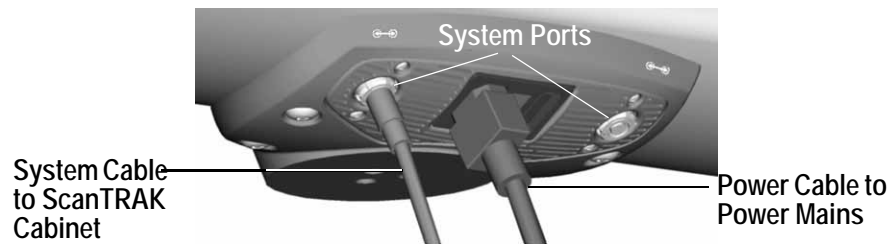


Figure 2-1 Optical Tracker Cables and Port Connections

3. Connect the Optical Tracker system cable to the ScanTRAK Cabinet system port.
4. Connect the host computer Ethernet cable to the ScanTRAK Cabinet Ethernet port.
5. Connect the collector cable from the ScanTRAK Cabinet's collector port to the collector port on the OPTOTRAK Controller.

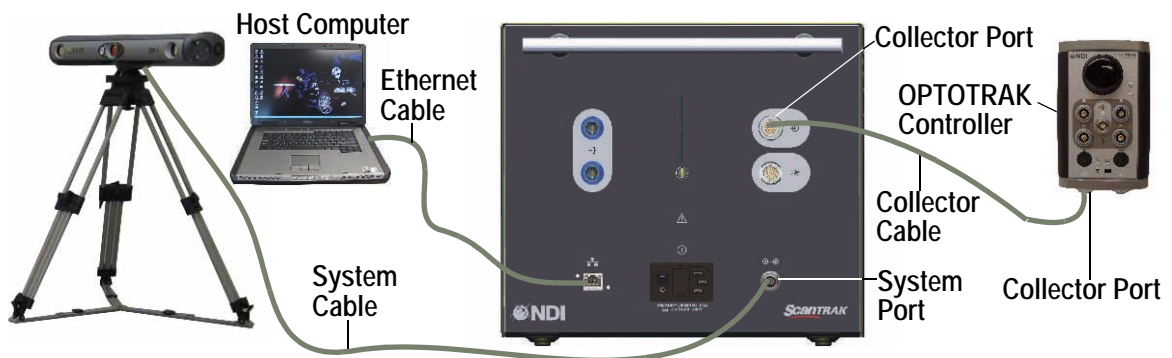


Figure 2-2 Standard ScanTRAK Connections

2.3 Connecting the System for Scanning

1. Connect the V5 cable to the V5 ports on the V5 sensor and the OPTOTRAK Controller.
2. Connect the MSP to the mount point on the V5 sensor and turn the quick release until it stops.
3. Connect the MSP cable to the MSP scanning port, routing it through the cable clip.
4. Connect optional accessories to the ScanTRAK Cabinet accessory ports, if applicable.

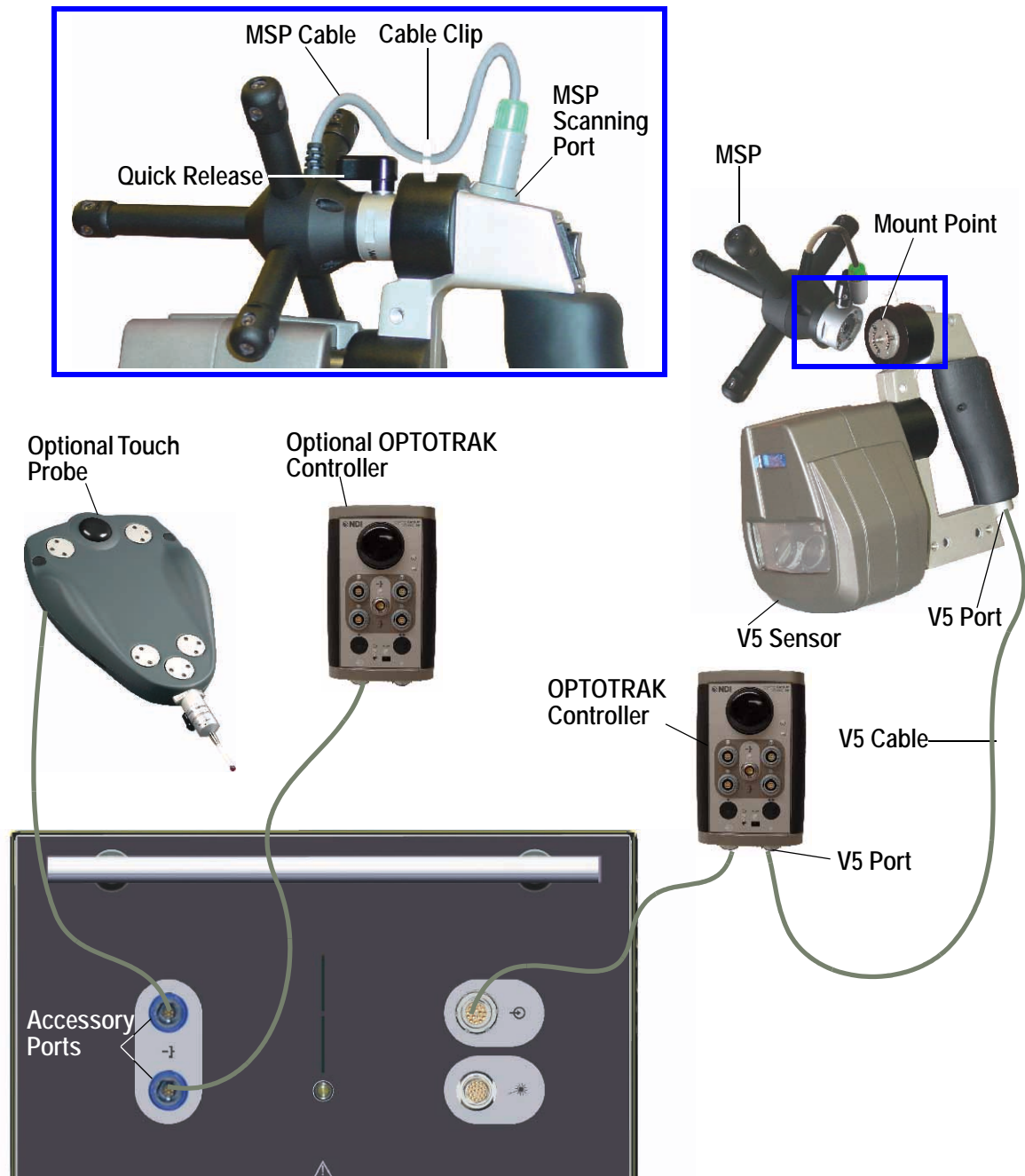


Figure 2-3 ScanTRAK Scanning Connections

2.4 Connecting the System for Probing

1. Disconnect the MSP from the V5 sensor by turning the quick release counter-clockwise and removing the MSP connector from the MSP scanning port.
2. Disconnect the V5 cable from the OPTOTRAK Controller's V5 port and connect it to the warmer port on the ScanTRAK Cabinet.

Caution! Do not forget to disconnect the V5 sensor from the OPTOTRAK Controller when you place the V5 sensor on its stand. Otherwise, you may accidentally drag or drop the V5 sensor, resulting in equipment damage.

3. Place the V5 sensor on its stand.
4. Connect one end of the MSP extension cable to the OPTOTRAK Controller's MSP probing port, and the other end to the MSP cable connector.

Caution! Do not plug the MSP connector directly into the MSP probing port on the OPTOTRAK Controller. Use the MSP extension cable to connect the MSP connector to the MSP probing port. Failure to use the MSP extension cable for probing operation will result in equipment damage.

5. To connect a supported device to the MSP, such as a stylus assembly, line up the alignment dots and turn the quick release until it stops.
6. Connect optional accessories to the ScanTRAK Cabinet accessory ports, if applicable.

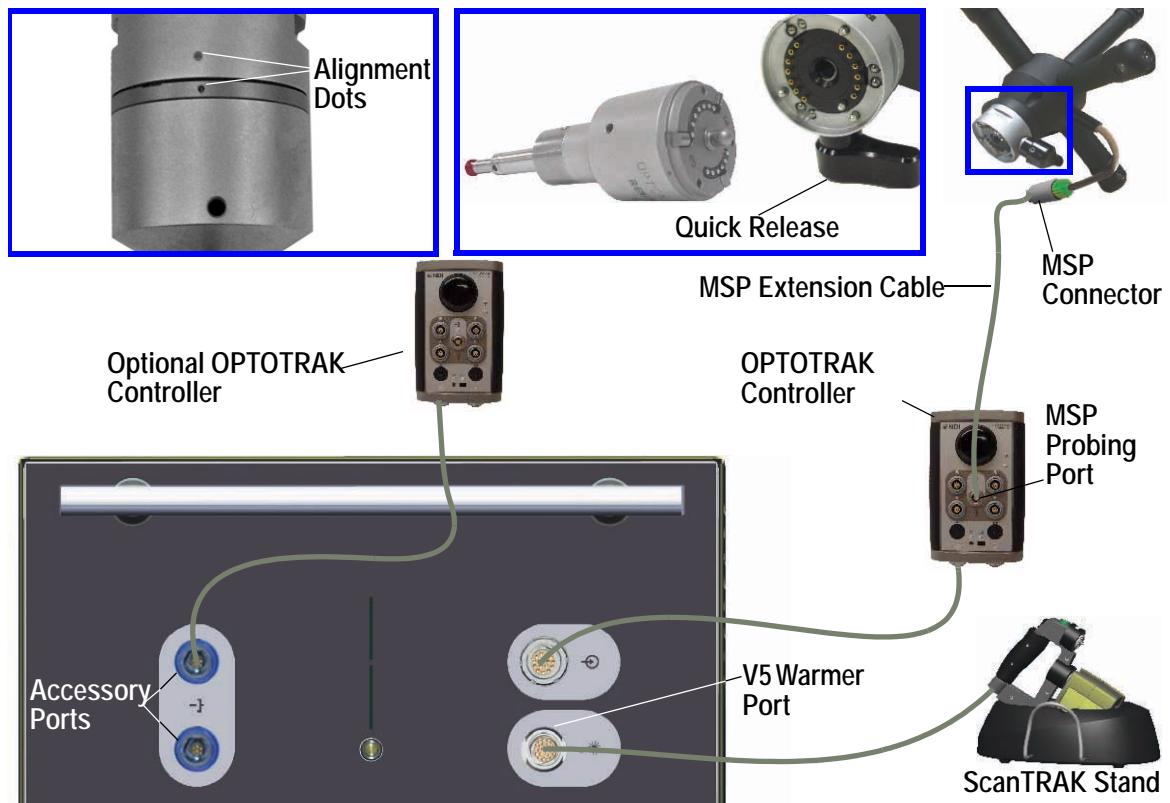


Figure 2-4 ScanTRAK Probing Connections

2.5 System Startup

Start the system as follows:

1. Power on the ScanTRAK Cabinet by pressing the power switch on the front of the unit. The green power light on the ScanTRAK Cabinet lights.
2. Remove the three lens caps and power on the Optical Tracker by pressing the black power switch on the centre mount. The green power status light turns on.

Caution! The Optical Tracker requires a warm up time to stabilize. See the “OPTOTRAK PROseries System User Guide” for warm up guidelines. Failure to allow the Optical Tracker sufficient time to warm up may affect the accuracy of your measurements.

2.6 Selecting Tools with Third-Party Software

See the Additional Info tab in this documentation binder for information about selecting NDI probes and scanners using some third-party data collection applications.

2.7 System Warm Up and Calibration

If this is the first time you are setting up the system, see “ScanTRAK Calibration” on page 10 for information about calibrating the ScanTRAK system.

V5 Sensor Warm Up

For recommendations regarding the warm up time for the V5 sensor, see the ScanWorks® documentation.

Optical Tracker Warm Up

For recommendations regarding the warm up time for the Optical Tracker, see the “*OPTOTRAK PROseries System User Guide*.”

3 ScanTRAK Calibration

The MSP must be calibrated to the V5 sensor the first time it is attached. After it has been calibrated to the V5 sensor, the MSP can be detached and re-attached without calibration. The ScanTRAK scanner calibration procedure is divided into three main sections - Z-Scale Verification, Scan Shot Calibration and Scan Pass Calibration. See the “Calibration Master Task List” on page 10 for the complete calibration routine.

Probe Stylus Calibration

When a stylus assembly is attached to the MSP for the first time, it must be qualified using the Stylus Calibration Utility.

Note When performing the stylus calibration, orient the MSP so that the quick release faces away from the Optical Tracker.

See the “*OPTOTRAK PROseries System User Guide*” for information about calibrating probe styli.

Caution! Using a stylus assembly that has not been qualified will produce inaccurate measurements.

Optical Tracker AUTOscale

The OPTOTRAK PROseries System includes the AUTOscale Reference Kit, which allows you to verify measurement accuracy and apply an appropriate scale, if required, to maximize performance. If this is the first time you are setting up the ScanTRAK system, you must see the “*OPTOTRAK PROseries System User Guide*” to read the AUTOscale guidelines and perform the AUTOscale procedure.

3.1 Calibration Master Task List

1. In ScanWorks, open the Calibrate pane by doing one of the following:
 - Open the **Sensor Settings** window as described in the ScanWorks documentation, select the **Calibration** profile, then press the **Record** button to start the data collection process.
 - Select the “Calibration” option from the **Setup** menu.

The Calibration window displays, with the Z-Scale Verification process activated.

2. See “Z-Scale Verification” on page 11 and complete the procedure.
3. If this is your first time calibrating the ScanTRAK system, see “Calibration Preparation” on page 11, “Calibration Positions, Scan Shots, and Scan Passes” on page 12, and “Understanding the Scan Shot Calibration Window” on page 13.
4. See “Scan Shot Calibration” on page 15 and complete the procedure.
5. See “Scan Pass Calibration” on page 16 and complete the procedure.

3.2 Z-Scale Verification

1. Position the scanner so it looks down at a flat, smooth, non-reflective surface.
2. Press the **Measure** button.
3. Lower the scanner until the green line representing the laser line moves up and out of the blue keystone representing the laser light field in the calibration window (see Figure 3-5 on page 14).

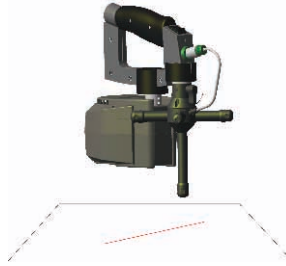


Figure 3-1 Z-Scale Calibration Starting Position

4. Press the **Measure** button and slowly raise the scanner until the green line representing the laser line moves down and out of the blue keystone.

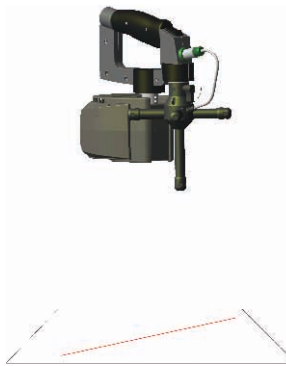


Figure 3-2 Z-Scale Calibration Finishing Position

5. Conclude the verification by pressing the **Measure** button again.

3.3 Calibration Preparation

- If necessary, verify Optical Tracker accuracy using the AUTOscale procedure as described in the “*OPTOTRAK PROseries System User Guide.*”
- To prevent errors due to thermal expansion, warm up the V5 sensor according to the guidelines specified in the ScanWorks documentation.
- Position the calibration sphere in the centre of the volume approximately 3m from the Optical Tracker. A touch probe and NDI ToolTray’s Digital Read Out (DRO) Utility can be used to determine distance. Exit the DRO utility when you have positioned the sphere.
- Make sure the sphere is securely mounted. It must not be able to move with respect to the Optical Tracker.

3.4 Calibration Positions, Scan Shots, and Scan Passes

This section illustrates the calibration positions and variations for both the scan shot and scan pass sections of the ScanTRAK scanner calibration.

ScanTRAK Scanner Calibration Positions

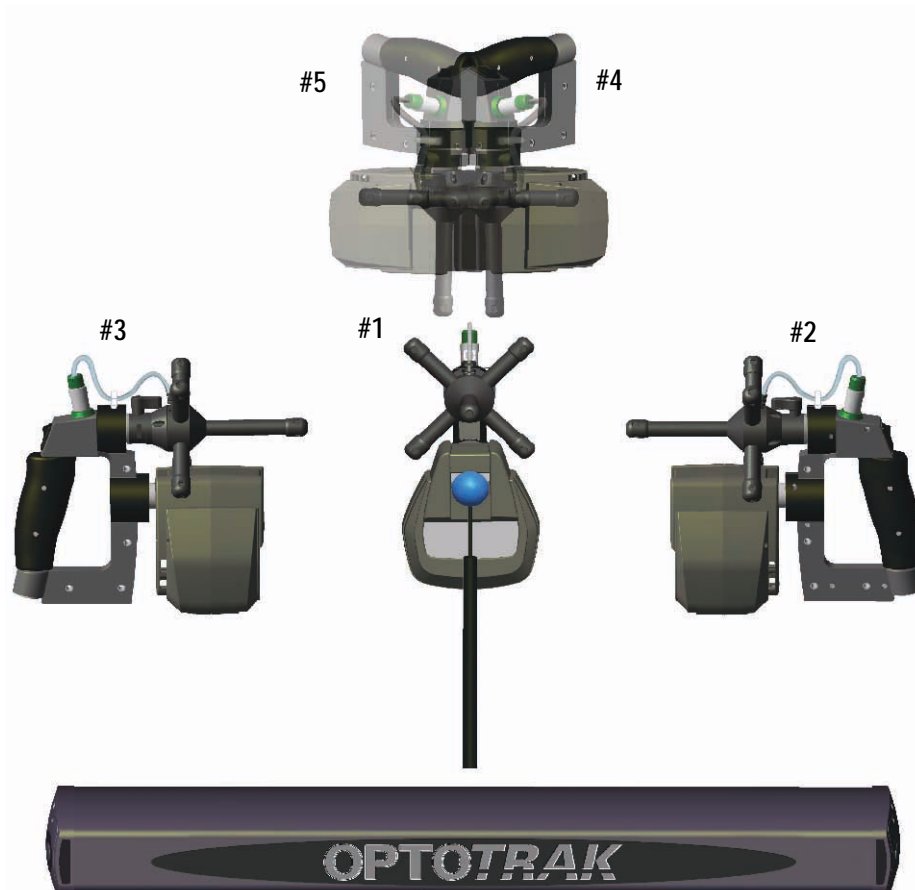


Figure 3-3 ScanTRAK Scanner Calibration Positions

Managing Scan Shots and Scan Passes

For the *Scan Shot* Calibration, at each of the five main positions, the calibration wizard will prompt you to position the V5 sensor for three scan shots, as shown in Figure 3-4.

For the *Scan Pass* Calibration, at each of the five main positions, you must position the V5 sensor for three scan passes, as shown in Figure 3-4.

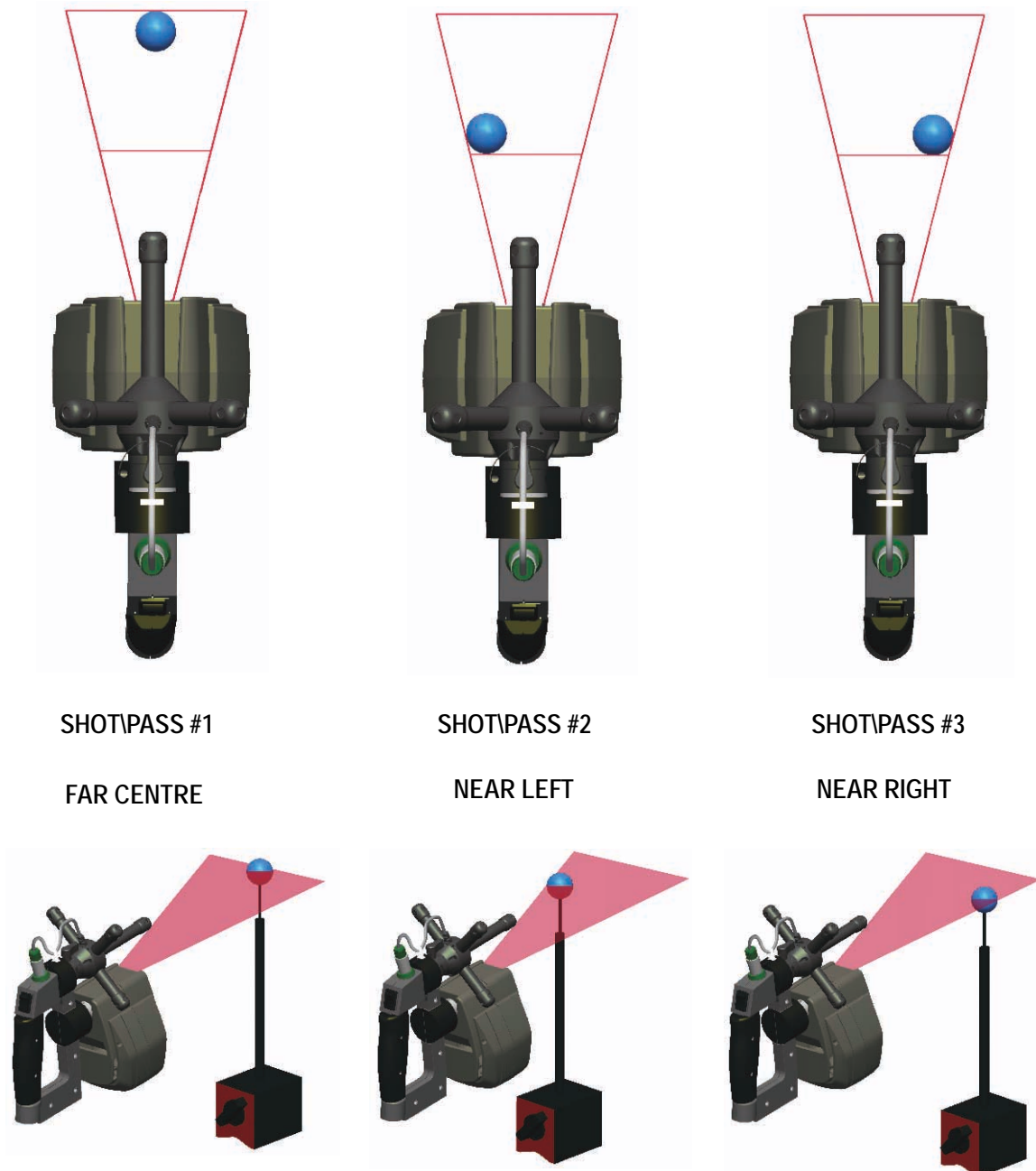


Figure 3-4 Scan Shot and Scan Pass Calibration Position Variations

3.5 Understanding the Scan Shot Calibration Window

The **Scan Shot Calibration** window guides you through the scan shot calibration procedure.

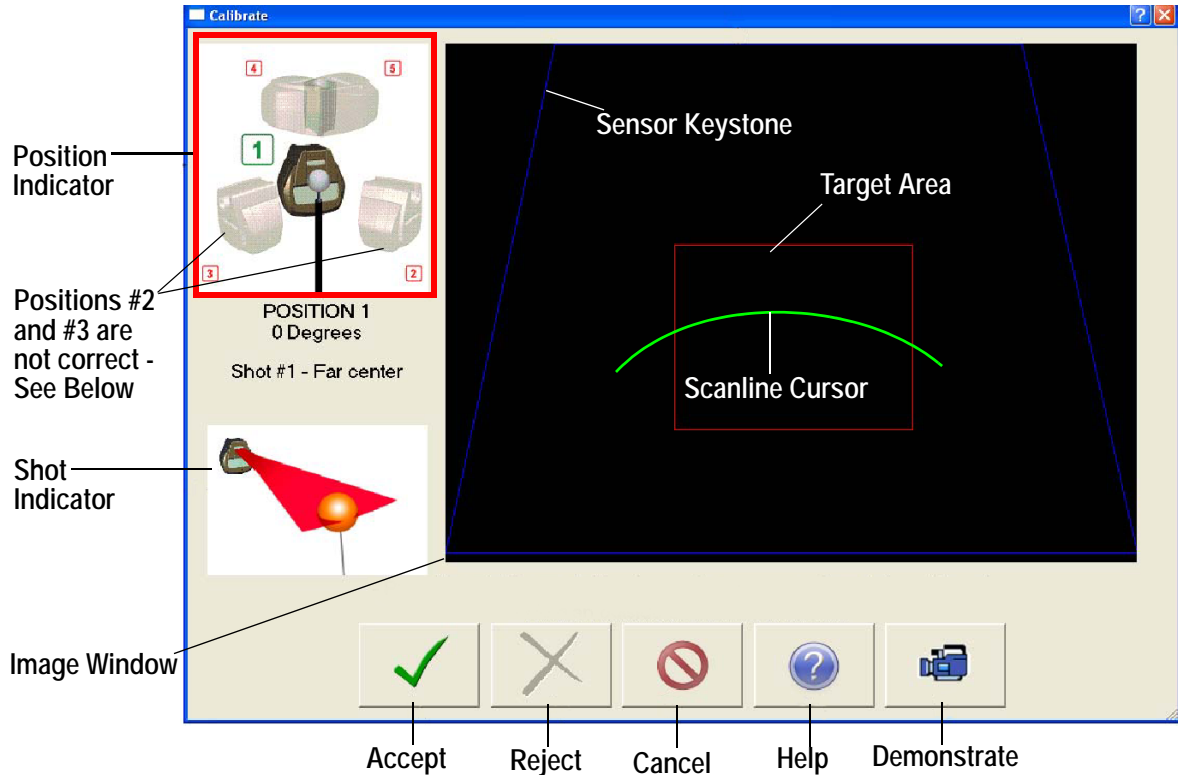


Figure 3-5 Calibration Window

Position Indicator This indicates the orientation from which the system is currently acquiring data. **Positions 2 and 3 as indicated by this animated diagram are different from the correct positions 2 and 3 for ScanTRAK scan shot and scan pass calibrations.** For the correct ScanTRAK positions, see Figure 3-3 on page 12.

Shot Indicator This indicates the required target alignment for the current shot.

Accept This captures data, accepts captured data, and moves you to the next step in the calibration.

Reject This rejects captured data.

Cancel This ends the calibration session without saving any data and closes the window.

Help This displays the online help topic overview for this window.

Demonstrate This displays a video showing how to perform a Z-Scale Verification or a Scan Shot Calibration, depending on the system status when the button is selected. **Positions 2 and 3 as depicted in the video are different from the correct positions 2 and 3 for ScanTRAK scanner calibration, which are shown by Figure 3-3 on page 12.**

Image Window This contains the current scan data to be used for calibration. The bottom represents the far field, where images of the centre of the calibration sphere are taken; the top represents the near field, where left and right image of the calibration sphere are taken.

Sensor Keystone This area indicates the laser light field, and is outlined by bright blue lines.

Target Area This area is where the scanline cursor must display to successfully calibrate the sensor, and is outlined by the red box in the lower portion of the window.

Scanline Cursor This green hemisphere represents the laser line intersecting the calibration sphere.

3.6 Scan Shot Calibration

The Scan Shot Calibration procedure requires you to place the ScanTRAK scanner's laser stripe across the diameter of the calibration sphere in 5 different positions, as shown in Figure 3-3. Each position has three variations, or "shots", for a total of 15 scan shots, as shown in Figure 3-4. The *ScanWorks Calibration Wizard* and the **Calibration** window assist you throughout the procedure. When completing scan shots, use the correct method as shown by Figure 3-6.

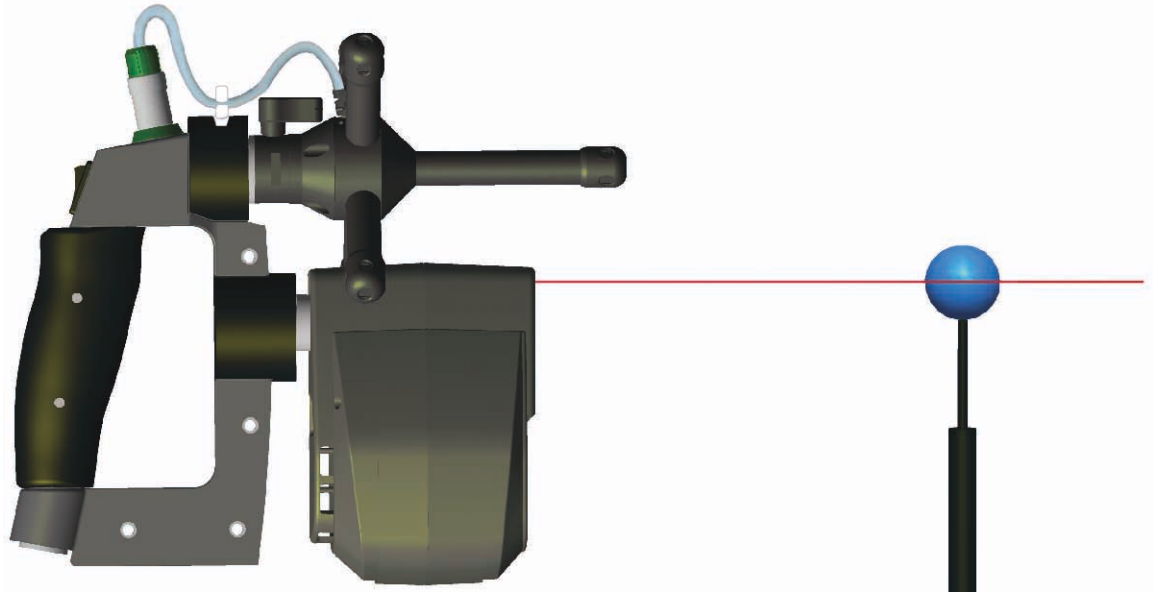


Figure 3-6 Scan Shot Aiming

Scan Shot Calibration Procedure

Note This procedure assumes that you are familiar with ScanWorks. If you require more information, see the ScanWorks documentation.

1. In ScanWorks, open the **User Options** window by clicking the **User Options** button.
2. Check the **Buttonless Calibration** option.
3. Click **OK** to close the window.

The **User Options** window **General** pane displays.

4. Open the Calibration Wizard by doing one of the following:
 - From the **Profile** pull-down menu, select **Calibration**, and then select the **Record/Pause** button from the **Controls** toolbar.
 - From the **Setup** menu, select **Calibration...**

The **Position Indicator** displays "Position 1" and the **Shot Indicator** displays "Shot 1".

5. Position the scanner so that the green hemisphere displays completely within the sensor keystone and target area.

Once the green hemisphere displays correctly, the data for the scan shot is automatically captured by the system. The display changes to show the next position/shot combination.

- Repeat step 5 until all shot variations for all five positions are complete.

The system displays the calibration results.

3.7 Scan Pass Calibration

The Scan Pass Calibration procedure requires you to scan the surface of the calibration sphere in 5 different positions, as shown in Figure 3-3 on page 12. Each position has three variations, for a total of 15 scan passes, as shown in Figure 3-4 on page 13.

When completing a scan pass, use the correct method as shown by Figure 3-7 on page 16.

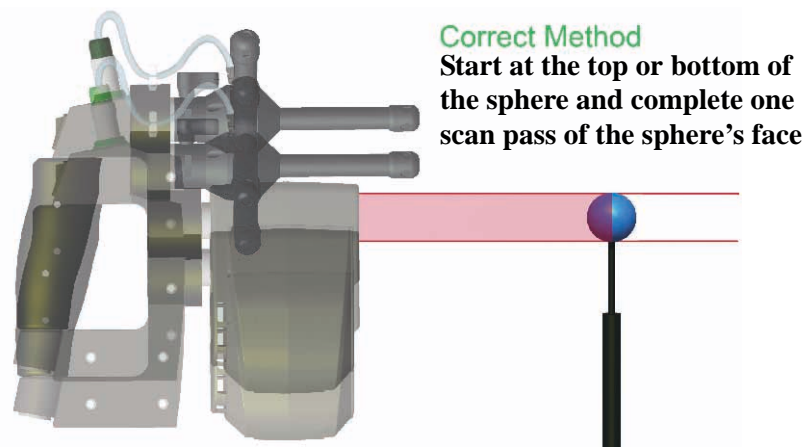


Figure 3-7 Correct Scanning Method for Scan Pass Calibration

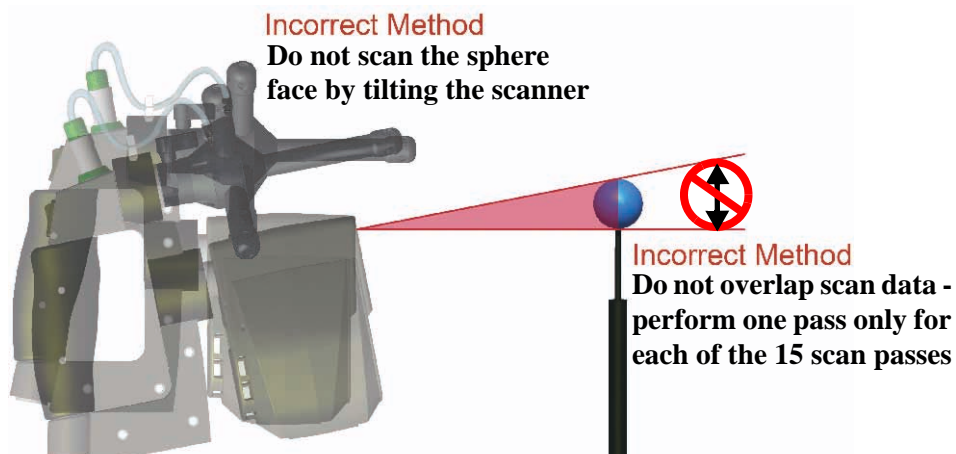


Figure 3-8 Incorrect Scanning Method for Scan Pass Calibration

Scan Pass Calibration Procedure

The Scan Pass Calibration procedure is not supported by a wizard.

- In ScanWorks, select the **Default Scan** profile from the **Profile** pull-down menu.

2. Click the **Record/Pause** button from the ScanWorks **Controls** toolbar.
3. Prepare for the first scan pass by placing the scanner at Position #1, Pass #1, as shown in Figure 3-3 on page 12 and Figure 3-4 on page 13.
4. Using Figure 3-7 as your guide, scan the face of the sphere once.
5. Repeat step 4 for every calibration position shown by Figure 3-3 and every variation shown by Figure 3-4, for a total of 15 scan passes.
6. When you are finished collecting data, use the **Outside** tool in ScanWorks to trim the stem out of the data, as shown in Figure 3-9.

Caution! Do not leave any of the calibration sphere stem data in the Scan Pass Calibration data file before saving it. Failure to remove all of the stem data will affect the accuracy of your measurements.

Note To ensure all of the stem data is removed, eliminate a small portion of the sphere bottom as shown below.

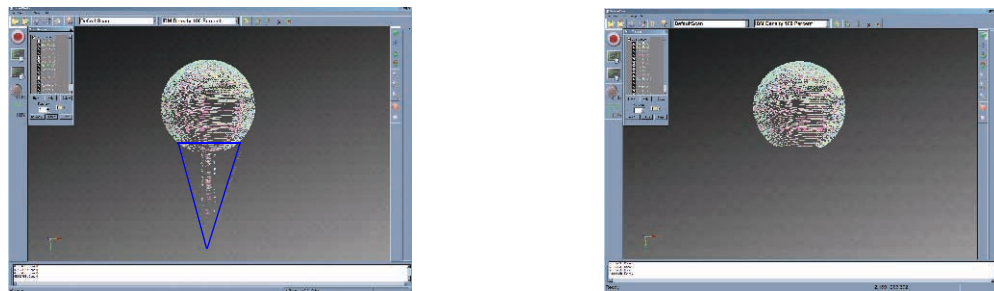


Figure 3-9 Calibration Sphere Stem Trim - Scan Pass Calibration

7. Click **File > Save** to save the file and name it **calscan.swl**.
8. Save the **calscan.swl** file to the **NDIcommon/cal/** directory, where **NDIcommon** is the common files location you specified during OPTOTRAK PROseries Portable CMM software installation (the default is **C:/ndigital/cal**).
9. Right-click the ToolTray icon in the system tray and select “Calibrate ScanTRAK”.
 ToolTray will display a confirmation message when it successfully applies the calibration. If ToolTray reports an error, ensure that the file was saved to the NDI common files directory specified during installation. If the calibration cannot be applied, contact your support representative.
10. Perform a ScanWorks Sensor Reset.

4 Data Collection

The ScanTRAK system collects data through both laser scanning and touch probing.

4.1 Scanning Measurement

The specific procedure for scanning is determined by your data collection software and the nature of the task you are performing. The procedure below provides basic scanning instructions. For more detailed guidelines, see the ScanWorks user documentation.

1. Bring the scanner into the Optical Tracker's measurement volume. If applicable, the scanner's position in the volume will be displayed by your data collection software.

When you are ready to begin scanning, make sure there are no obstructions in the space between the MSP targets and the Optical Tracker.

2. Position the scanner approximately 15 cm from the object to be scanned and press the **Measure** button to begin scanning.

When the **Measure** button is pressed, the scanner emits a tone that changes pitch depending on the scanner's distance from the object being scanned.

3. To end the scan, press the **Measure** button again.

Note Many software applications, including those offered by NDI, provide on-screen controls for taking measurements. Choose the method that best addresses your specific situation.

4.2 Scanning with Dynamic Part Referencing

When applied, the Dynamic Part Referencing (DPR) Utility can correct for vibration or movement in the Optical Tracker or measurement object. After you apply a DPR correction mode, any data you collect falls under a newly-defined coordinate system.

Caution! Do not apply a correction mode using the Dynamic Part Referencing Utility after you have started a scanning session. Correction modes do not affect scanning data collected prior to the target survey and mode application. Uncertainty regarding the alignment of scanned data can lead to significant measurement errors.

See the "*OPTOTRAK PROseries Dynamic Referencing User Guide*" for detailed information about using the DPR utility.

4.3 MSP Probing Measurement and Measurement Mode Settings

The MSP supports two measurement modes — single point and continuous point scan. For information about using the OPTOTRAK Probe, see the "*OPTOTRAK Probe User Guide*".

Single Point This is for defining single measurement points.

Continuous Point Scan (if applicable) This option enables continuous measurement.

Taking Measurements With the MSP

The specific procedure for defining measurement points is determined by your data collection software application. The procedure below outlines the general point measurement procedure when using an MSP:

1. Connect the probe, bring it into the measurement volume, and check the indicators. If applicable, the stylus tip position is displayed by your data collection software application.
2. Carefully lower the probe stylus onto the point you are defining. Ensure there are no obstructions between the MSP targets and the Optical Tracker.
3. Measurement points are taken using one of the two following measurement modes:
 - If you are using *single point* mode, press the **Measure** button to define a point. When the **Measure** button is pressed, the system records the position of the stylus contact point and the probe emits a short tone, followed by a long tone. Do not alter the stylus tip's position from the moment the **Measure** button is pressed until the second tone sounds. If a problem occurs during the measurement, such as target blockage, the probe emits a triple tone and the measurement point is cancelled.
 - If you are using *continuous point scan* mode, press the **Measure** button and carefully drag the probe stylus along a desired path (you do not have to hold the **Measure** button). Press the **Measure** button again at the end of the path. Your software application may emit a tone while you are performing a point scan with the MSP.

Note Many software applications, including those offered by NDI, provide on-screen controls for taking measurements. Choose the method that best addresses your specific situation.

5 ScanTRAK Maintenance and Best Practices



Disconnect the ScanTRAK Cabinet and Optical Tracker from their power sources before cleaning the equipment or changing fuses. Failure to disconnect the System Controller and Optical Tracker may result in personal injury.

Unless otherwise stated, there are no user-serviceable parts in the OPTOTRAK PROseries System. Any servicing or disassembly must be performed by trained technicians or referred to NDI. Unauthorized servicing or disassembly will void your warranty and could result in equipment damage and personal injury.

5.1 Replacing ScanTRAK Cabinet Fuses

1. Unplug the ScanTRAK Cabinet from the power supply.
2. Release the two fuse holder tabs simultaneously, with the aid of a tool such as a screwdriver, and pull out. The tabs are marked with arrows for identification.

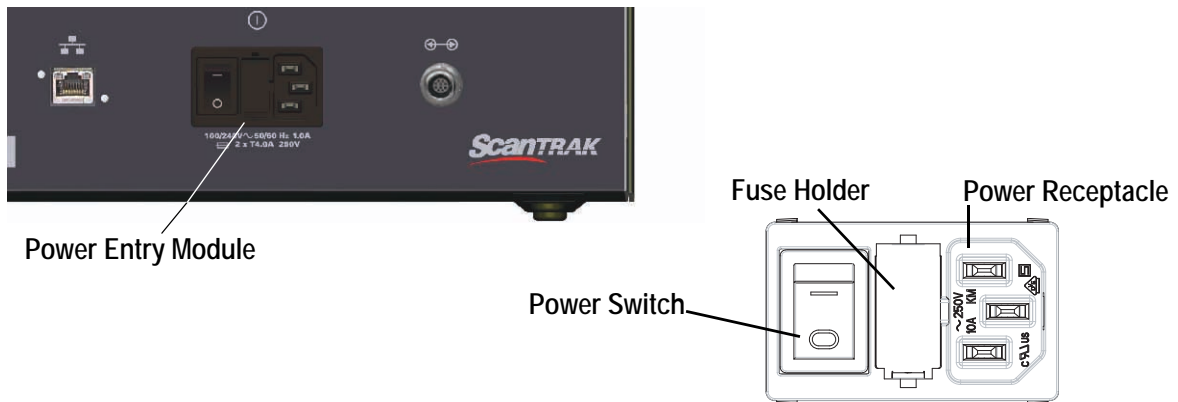


Figure 5-1 ScanTRAK Cabinet - Power Entry Module

3. Remove the fuses from the fuse drawer.
4. Replace the fuses as required with two new T4.0A, 250V fuses for continued protection against risk of fire.
5. Push the fuse holder back in place, ensuring that it latches correctly.

5.2 Best Practices and Cleaning

To maintain the accuracy and integrity of your ScanTRAK hardware, adhere to the following guidelines:

- Use the holder to support the ScanTRAK scanner when it is not in use.
- Remove dust from the scanner chassis with a dry, soft cloth.
- Remove dirt or finger marks from the scanner chassis using a damp cloth and dry immediately.

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