

VR9500 VERIFICATION

○ What we will be covering

- Define Verification
- VR Options For Verification
- Recommended procedure
- Required equipment
- How to run the VR automated procedure



VERIFICATION DEFINED

- Verification is the procedure that checks the calibration values.
 - The gains and offsets are checked against a calibrated external voltmeter using predefined tolerances



VERIFICATION OPTIONS

- Automated Verification Software for In-house Verification
 - Automated verification option is included for 1 year with every new system
 - Automated verification option also included for 1 year with renewal of your Software Maintenance Agreement
 - Automated verification can be purchased separately as a yearly license or permanent option.
- VR Factory Calibration & Verification
 - Pre and Post Reports
 - Hardware Diagnostics
 - Visual Inspection
 - Signed Certificate
 - NIST Traceable Lab



RECOMMENDED PROCEDURE

- ◉ Pre calibration check for 9500 at 1 year tolerance level.
- ◉ Full Calibration Verification 9500
- ◉ Burn Calibration Verification to VR9500 to reset the date



REQUIRED EQUIPMENT

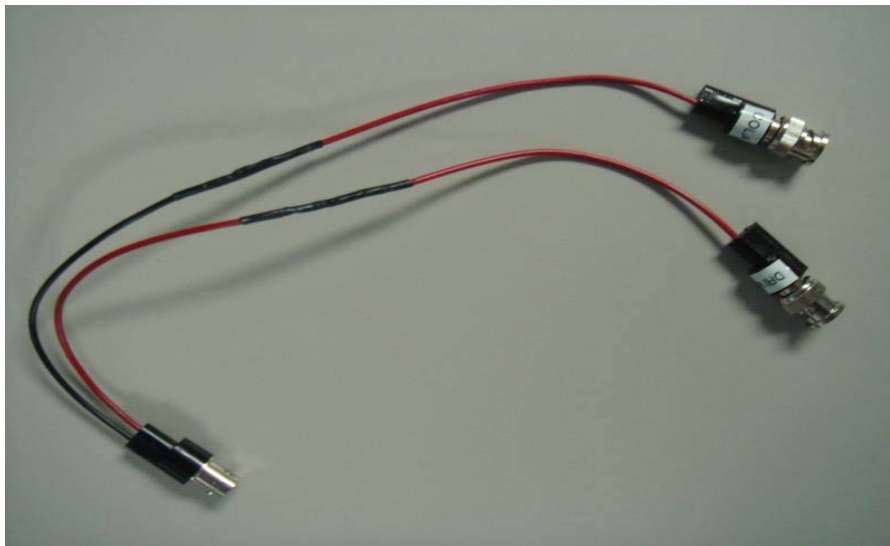
- Agilent 34410A or Agilent 34401A
 - Agilent Connection Expert Software must be installed if using the 34410A
 - Free download from <http://www.agilent.com> (search Google for “libraries suite 16.3”)
 - Configuration For 34401A
 - Connection:RS232
 - Baud Rate: 9600
 - Data bits: 8
 - Parity: None
 - Language: SCPI
- BNC Cable Set
 - VR recommends Pomona brand (complete cable kit available for purchase)
 - 4 BNC Tee Connectors
 - 5 BNC Cables
 - 1 BNC Banana Plug
 - 1 BNC Differential Adapter Cable



WHAT IS DIFFERENTIAL CABLE?

○ Differential Adapter Cable

- The pin of the cable goes to the Drive and the shell of the cable goes to the COLA
- Parts
 - 1 BNC (f) to leads (Pomona 4969)
 - 2 BNC (m) to leads (Pomona 4970)



COMPLETE SETUP



www.vibrationresearch.com

VR CABLE KIT



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VIBRATIONVIEW VR9500 AUTOMATED CALIBRATION VERIFICATION PROCEDURE

- Power on VR9500 and you Agilent DMM. Let both warm up for one hour
- Open the VibrationVIEW software
- Assign the VR9500 controller you want to verify in Channels 1-4 of the Hardware Tab of configuration

Assign Channels	Serial Number	Last Calibrated
Channels 1-4:	1C6F4E	Identify
Channels 5-8:		Identify
Channels 9-12:		Identify
Channels 13-16:		Identify

- Select test type System Check



VIBRATIONVIEW VR9500 AUTOMATED CALIBRATION VERIFICATION PROCEDURE

- ◉ Navigate to the verification option in VibrationVIEW
- ◉ Choose your DMM and run the [Verification procedure](#) using the 'Pre-Calibration Check for 9500 at 1-Year Tolerance Levels' setting (Should take 15-20 minutes)
 - This will verify that the controller came into the calibration lab within the specified 1-year tolerance levels.
- ◉ The Software will check the communication with the DMM and if all is well, the next option will be enabled
- ◉ Click next and enter the appropriate information in the blank fields of the window generated by VibrationVIEW
- ◉ Wait for procedure to complete and save report



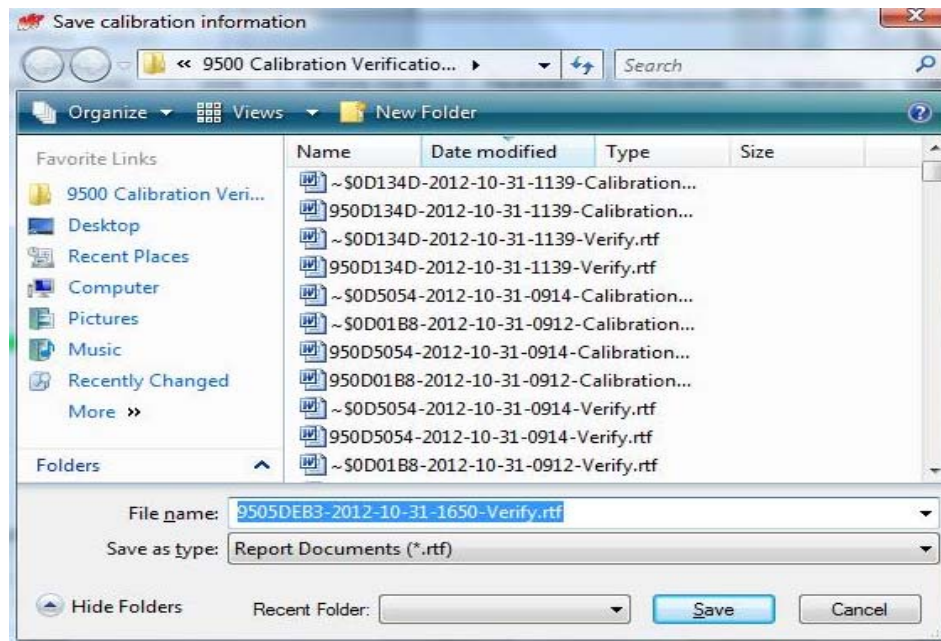
VIBRATIONVIEW VR9500 AUTOMATED CALIBRATION VERIFICATION PROCEDURE

- ◉ Repeat the steps previous, this time in the verification tab, choose “Calibration Verification 9500” option
- ◉ The Software will check the communication with the DMM and if all is well, the next option will be enabled
- ◉ Click next and enter the appropriate information in the blank fields of the window generated by VibrationVIEW



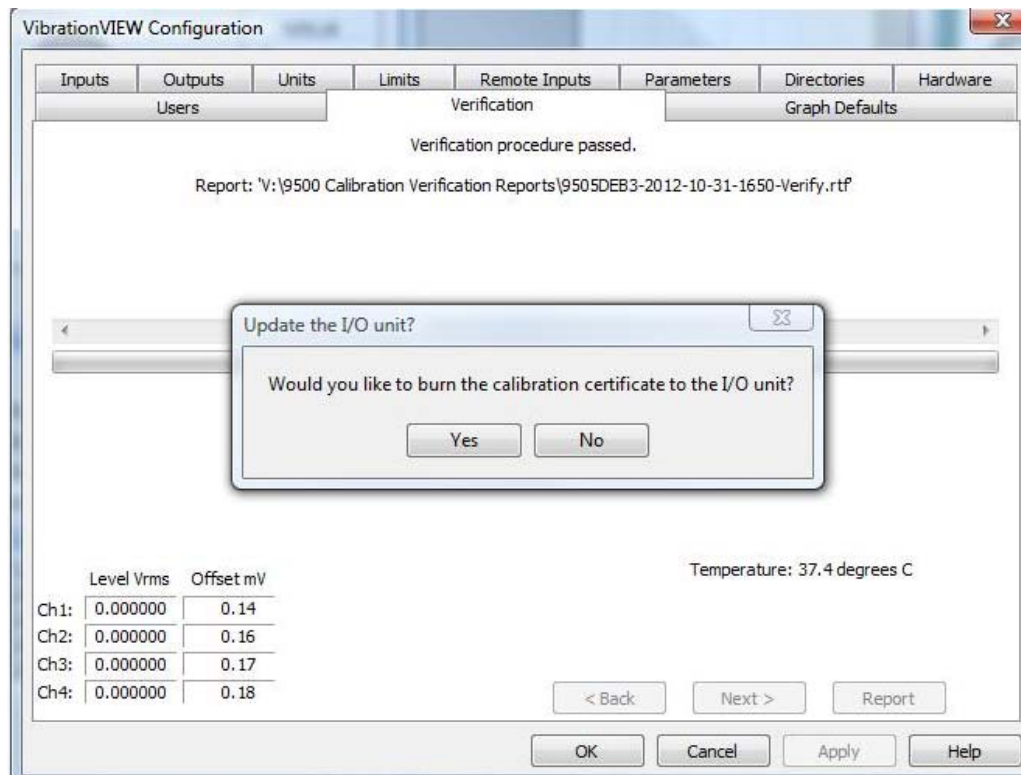
VIBRATIONVIEW VR9500 AUTOMATED CALIBRATION VERIFICATION PROCEDURE

- The automated verification has begun and should be finished in 45 minutes to 1 hour
- After the verification passes you will be prompted to save report.



VIBRATIONVIEW VR9500 AUTOMATED CALIBRATION VERIFICATION PROCEDURE

- After saving the report the software screen will prompt you “burn the calibration certificate”



VIBRATIONVIEW VR9500 AUTOMATED CALIBRATION VERIFICATION PROCEDURE

- ◉ Select Yes if you would like to reset the verification date. If you select no you will not reset the date and no certificate will be generated
- ◉ Save the certificate and print out report if desired
- ◉ You are finished! If all went well you have successfully verified your calibration and reset your calibration verification date!



TROUBLESHOOTING

○ Common Problems

- Null modem cable required for Agilent meter
- Not all USB to serial adapters are created equal
- Differential Adapter cable is more than a T
- Temperature Drift
- Software not enabled or latest key is not installed

