MegaPulse P/PF TestMinder

Instruction Manual



Dear Customer:

Congratulations! Compliance West USA is proud to present you with the MegaPulse USB TestMinder Multi-Pulse Test Software. The installation and operating instructions are included in the Manual, so please retain this information for future use.

Thank you for your trust and confidence.

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An Introduction to the MegaPulse USB TestMinder

The TestMinder is a software program that enables the control of your tester from a Windows-equipped computer. TestMinder allows to setup testing parameters as: "time between pulses", "polarity", "Voltage", "Pulse Cycles", etc. A record of every test can be saved in a computer file as ".txt" or ".csv" format. The ".csv" file can be read by Microsoft Excel.

Software Installation and Setup



Please read the full instructions for driver and software installation that applies to your scenario otherwise it will not work as intended.

System Requirements

Before proceeding with the installation make sure you meet the next requirements:

- 1. PC with Windows:
 - a. 32 bit: Windows XP.
 - b. 64 bit: Windows 7, 8.1 and 10. We recommend to use either 7 or 10 for a more reliable experience.
- 2. For everything to work correctly your Windows PC needs to have these applications installed beforehand:
 - a. Microsoft .NET Framework 4.5.2.
 - b. Microsoft Visual C++ 2010 Redistributable.

For your convenience, we've included the official installers for both Microsoft applications in the CD/USB provided in the "Additional Applications" folder.

***NOTE:** Make sure you have the proper TestMinder version installer for the type of tester that you have, TestMinder comes in two versions: P and PF. If you are not sure which version applies to your tester, please contact Compliance West USA for assistance.

32-bit Installation Procedure

- 1. Open TesMinder 32-bit folder and run "Setup.exe". The files will be installed to the location of your choice.
- 2. Connect the MegaPulse to the computer using the Compliance West supplied USBD box. Do not connect the USB cable through a USB hub or a device on your computer like a USB port on your keyboard. A window will pop up on the screen: "Found New Hardware Wizard".
- 3. Click on "Cancel".



Figure 1 Found New Hardware screen

4. Ignore the following message "A problem occurred during hardware installation"



Figure 2 Notification message

- 5. Browse to the TestMinder 32-bit folder and run the file "Install_Driver.exe". It will install the necessary drivers.
- 6. After installation is finished, you can now run the installed application.

64-bit Installation Procedures

Windows 8/10 Driver Installation

- 1. Windows 8 or 10 have an option that blocks any driver installation not digitally signed. We need to bypass this requirement first if we want to proceed with the installation. We will disable driver signature enforcement on Windows 8 or 10, this isn't a permanent configuration change. The next time you restart Windows, it will boot with driver signature enforcement enabled.
- 2. To do this, get to the Windows 8 or 10 advanced boot options menu. For example, you can hold down the Shift key while you click the "Restart" option in Windows (Figure 3). Your computer will restart into the menu.



Figure 3 Hold down shift, click restart.

3. After restart, select the "Troubleshoot" tile on the Choose an option screen that appears (Figure 4).

Cho	ose an option
\rightarrow	Continue Exit and continue to Windows 10
IY.	Troubleshoot Reset your PC or see advanced options
Φ	Turn off your PC

Figure 4 Troubleshoot options

4. Next select "Advanced options" (Figure 5).



Figure 5 Troubleshoot menu 3

5. Click the "Startup Settings" tile (Figure 6).



Figure 6 Advanced options menu

6. Click the "Restart" button to restart your PC into the Startup Settings screen (Figure 7).

Startup Settings	
Restart to change Windows options such as: • Enable low-resolution video mode • Enable debugging mode • Enable Safe Mode • Disable driver signature enforcement • Disable early-launch anti-malware protection • Disable automatic restart on system failure	
	Restart

Figure 7 Startup Settings screen

7. Type "7" or "F7" at the Startup Settings screen to activate the "Disable driver signature enforcement" option (Figure 8).



Figure 8 Startup settings options

- **8.** Your PC will boot with driver signature enforcement disabled and you'll be able to install unsigned drivers. Now we can continue with the driver installation.
- **9.** <u>Plug in the USBD box using the USB cable provided</u>, do not connect the USB cable through a USB hub or a device on your computer like a USB port on your keyboard. Ignore the automatic installation prompt from Windows and proceed with the next step in this manual.
- 10. Browse the CD/USB provided with the tester and locate the folders with the installers as shown in (Figure 9).



Figure 9 TestMinder Installer Folders

*Note: Names can vary depending on your version.

11. Open the folder "USBD_Installer" and right click on the Setup icon (Figure 10) and click "Run as Administrator", you will be greeted by the installation welcome screen.

Name	~	
😵 setup.exe 🔸		
🛃 USBD_Insta	ler.msi	

Figure 10 Setup icon

12. Follow the instructions for the installer and click Next button. Take note of the USBD_Installer folder location, the driver installer will be copied there (Figure 11).

	Jider		La La
he installer will install USBD Instal	ler to the following folder.		
o install in this folder, click "Next"	. To install to a different fol	der, enter it below o	or click "Browse".
<u>F</u> older:			
C:\Program Files (x86)\USBD Ir	istaller\		Browse
			Disk Cost
Install LISED Installer for you malf	or for aminone who uses th	ain computer:	
Install CODD Installer for yoursel	, or for anyone who uses a	lis computer.	
Everyone			
⊖ Just me			
 Everyone Just me 			

Figure 11 Driver installer location

13. After the setup driver installation finishes, open a file explorer window and go to the location mentioned in step
12, normally it would be under "C:\Program Files(x86)\USBD_Installer. Look for the file named "Install_driver.exe and right click on it then choose "Run as Administrator" (Figure 12).

→ This PC → Local Disk (C:)	 Program Files (x86) 	>	USBD Installer
Name	^		
🕠 Install_Driver.exe		-	-
🖸 Install_Driver.exe.config			
🗟 System.Net.Http.dll			
😹 TestMinder.ico			
Testminder_USBD.inf			
windrvr1230.cat			
📓 windrvr1230.inf			
🗿 windrvr1230.pdb			
indrvr1230.sys			

Figure 12 Driver installer folder contents

14. On the screen that pops up, click on the button "Install Testminder 64 bit Driver" (Figure 13).

💀 USBD_Installer — 🗆 X	
Click to Install Testminder 64 bit Driver	
Verify Install	
Uninstall Testminder 64 bit Driver	
Verify Uninstall	
Exit	Figure 13 Driver install screen

15. A screen asking permission to install driver will pop up, click on "Install this software driver anyway" to proceed and finish the driver installation (Figure 14).



Figure 14 Driver installation warning screen

16. When driver installation is complete, the installation windows will close automatically. If you want to verify that the driver was properly installed, either click on the "Verify Install" button (Figure 13), you will get a little pop up confirming the installation, or to be sure go to "Control Panel" on your PC and open up "Device Manager", look for "Jungo Connectivity" and under it you should have "**Compliance West USBD**" (Figure 15).



Figure 15 Device manager verification

17. If the installation was unsuccessful, on the same "Device Manager" under the "Other devices" section an entry for an "Unknown device" will appear with a yellow warning sign (Figure 16). If this is the case, first uninstall everything, refer to page 16 of this manual for Uninstall instructions, after that repeat steps 1 through 17 of the Windows 8/10 installation on page 3.



Figure 16 Other devices section

18. After the driver installation is successful please proceed to the **Testminder Software Installation Instructions** on **page 11** of this manual.

Windows 7 Driver Installation

- 1. <u>Plug in the USBD box using the USB cable provided</u>, do not connect the USB cable through a USB hub or a device on your computer like a USB port on your keyboard. Ignore the automatic installation prompt from Windows and proceed with the next step in this manual.
- 2. Browse the CD/USB provided with the tester and locate the folders with the installers as shown in (Figure 17).

N	ame
ľ	Additional Applications
	Testminder_PF 64-bit
I	USBD_Installer

Figure 17 TestMinder Installer Folders

*Note: Names can vary depending on your version.

3. Open the folder "USBD_Installer" and right click on the Setup icon (Figure 18) and click "Run as Administrator", you will be greeted by the installation welcome screen.

Name	^	
😵 setup 🔸		

Figure 18 Setup icon

4. Follow the instructions for the installer and click Next button. Take note of the USBD_Installer folder location, the driver installer will be copied there (Figure 19).

		0
elect installation Folder		
e installer will install USBD Installer to the following folder.		
install in this folder, click "Next". To install to a different fold	ler, enter it below o	or click "Browse
Eolder:		
C:\Program Files (x86)\USBD Installer\		Browse
		Diek Cost
		DISK COSt
		DISK COSt
Install USBD Installer for yourself, or for anyone who uses th	is computer:	Disk 603(
Install USBD Installer for yourself, or for anyone who uses th	is computer:	Disk Cost
Install USBD Installer for yourself, or for anyone who uses th	is computer:	Disk Cost

Figure 19 Driver installer location

5. After the setup driver installation finishes, open a file explorer window and go to the location mentioned in **step 12**, normally it would be under "C:\Program Files(x86)\USBD_Installer. Look for the file named "Install_driver.exe and right click on it then choose "Run as Administrator" (Figure 20).

→ This PC → Local Disk (C:)	 Program Files (x86) 	>	USBD Installer
Name	^		
🕠 Install_Driver.exe			
Dinstall_Driver.exe.config			
System.Net.Http.dll			
🚼 TestMinder.ico			
Testminder_USBD.inf			
windrvr1230.cat			
🚮 windrvr1230.inf			
🛃 windrvr1230.pdb			
windrvr1230.sys			

Figure 20 Driver installer folder contents

6. On the screen that pops up, click on the button "Install Testminder 64 bit Driver" (Figure 21)

	8102		~
Click to Install Tes	stminder 64 bi	t Driver	
Verify	r Install]	
Uninstall Testm	ninder 64 bit D	river	
Uninstall Testm Verify L	ninder 64 bit D Uninstall	river	

Figure 21 Driver install screen

7. A screen asking permission to install driver will pop up, click on "Install this software driver anyway" to proceed and finish the driver installation (Figure 22).

-	Don't install this driver software
	You should check your manufacturer's website for updated driver software for your device.
•	Install this driver software anyway
	Only install driver software obtained from your manufacturer's website or disc. Unsigned software from other sources may harm your computer or stea information.

Figure 22 Driver installation warning screen

8. When driver installation is complete, the installation windows will close automatically. If you want to verify that the driver was properly installed, either click on the "Verify Install" button (Figure 21), you will get a little pop up confirming the installation, or to be sure go to "Control Panel" on your PC and open up "Device Manager", look for "Jungo Connectivity" and under it you should have "**Compliance West USBD**" (Figure 23)...



Figure 23 Driver verification location

9. If the installation was unsuccessful, on the same "Device Manager" under the "Other devices" section an entry for "Unknown Device" will appear with a yellow warning sign (Figure 24). If this is the case, first uninstall everything, refer to page 16 of this manual for **Uninstall instructions**, after that repeat steps **1 through 8** of the Windows 7 installation on **page 8**.



Figure 24 Other devices section

10. After the driver installation is successful please proceed to the **Testminder Software Installation Instructions** on **page 11** of this manual.

TestMinder 64-bit Software Installation Instructions

After successfully installing the USBD driver we will now proceed with the installation of the TestMinder software.

1. Browse the CD/USB provided with the tester and locate the folders with the installers (Figure 9), depending on your version open the folder "TestMinder_PF 64-bit" or "TestMinder_P 64-bit" and right click on the Setup icon and choose "Run as Administrator" (Figure 25).

🔄 setup.exe			
Testminder_MP_PF.applicatic		Open	
	•	Run as administrator	
		Troubleshoot compatibility	



2. Click "Yes" on pop up window and on the next screen click on "Install" (Figure 26).

Application Install - Security Warning		×
Publisher cannot be verified. Are you sure you want to install this application?		
Name: Testminder_MP_PF From (Hover over the string below to see the full doma C:\Users\Engineering\Documents\Testminder_64Bits\Test	in): :minder_PF_win10	
Publisher: Unknown Publisher		í
While applications can be useful, they can potentially h source, do not install this software. <u>More Information</u>	Install narm your computer. If	you do not trust the

Figure 26 TestMinder install screen

3. After the installation is successful the TestMinder main screen will appear (Figure 27), the application is ready for use with your tester.

TestMinder MP Remote Conti	ol Software 1.0	π.	
Auto Trigger]
Program: Options Multi-Pulse Test Setup	Messagess Enter the EUT's serial numbers and/or other information in the fields below before pressing the TEST button:	Safet	y Interlock
Start	(any description) (numbers only 💴 💟	Select file	

Figure 27 TestMinder Main Screen

TestMinder Operation Instructions

Manual Operation

1. On the computer's main screen, open your Start Menu, look for the TestMinder_MP folder, open TestMinder P/PF to start the program or double click the shortcut on your desktop. The following screen is displayed (Figure 28):

🞉 TestMinder MP Remote Con	trol Software 1.0	- 0	×
Auto Trigger CHARGE	COMPLIANCE WEST		
VOLTAGE	Messages:	Safety Inte	erlock
Program:Multi-Pulse-	Enter the EUT's serial numbers and/or other information Test results will be written	en to the file shown below:	
Options Setup			
Exit	(any description) (numbers only V	Select file	

Figure 28 Main screen

*Note: Energy option only enabled PF testers.

2. The MegaPulse may be run in manual mode from the computer. To conduct a manual test, first setup a name for a file to record the test results: at the lower right of the screen (Figure 29): click the "Select file" button to show the "Open File" dialog box, then select a file name and suffix. ".txt" files can be opened by the windows text editor, ".csv" files can be imported into Microsoft Excel if desired. After the file is selected, the text box will show the file location.

E:\MegaPulse	Test.csv	
	Calastin	

Figure 29 Test file setup box

3. For reference, enter a Description and/or the EUT's Serial Number at the bottom center of the screen (Figure 30). The up and down arrows allow the user to increment or decrement a previously entered serial number without retyping.

D5PF	123456
(any description)	(numbers only

Figure 30 Name and SN box

4. Press the Option button to confirm or change the following settings (Figure 31).

Voltage set:	1500	Change
Temporary Voltage:	5000	Change
Front panel control:	Enable	Disable

Figure 31 Options menu

Voltage Set: Press "Change" to set a charging voltage level. This charge setting is permanently stored until changed. Every time this value is changed it is also copied to the "Temporary Voltage" setting.

Temporary Voltage: Press "Change" to set a temporary charging voltage level. This setting overrides the "Voltage set" parameter. The temporary voltage setting will be lost when the tester is turned OFF. After the tester is turned OFF, Temporary Voltage will be equal to the "Voltage Set" value.

Front panel control: This option disables or enables the front panel buttons and knob on the actual MegaPulse tester.

5. Energy Measurement. If the MegaPulse is equipped with Energy Measurement, the software will display the Energy in the main window. Click on the Check box to display the Energy and save it on the selected file (Figure 32).

Energy	383	Joules

Figure 32 Energy measure box

6. To conduct a test, select either positive or negative polarity by clicking on the "Polarity" button. As it is clicked, it alternates between Normal (positive) and Reverse (negative) polarity. Polarity selection must be entered before clicking on the "Charge" button. After the charge button has been clicked, the "Polarity" button is disabled.

- 7. Press the Trigger button to deliver the pulse into the EUT.
- 8. Press "Auto trigger" button to enable the automatic trigger when the charging voltage level is reached.

Automatic Operation in Multi-Pulse Mode

The TM software can be used to run automatic tests with the equipment, follow the instructions below to achieve this.

1. On the main program screen (see Figure 28) first click the check box in the "Multi-Pulse Test" field (Figure 33). Two buttons will become available; "Setup" and "Start". Click on the "Setup" button.

Tes	t:
•	Setup
	Start

Figure 33 Multipulse box

2. The setup screen is displayed (Figure 34). This screen allows the user to define up to three test sequences within the following parameters:

<u>Pulses:</u> 0 - 1000 pulses <u>Polarity:</u> Positive, Negative or Toggle <u>Test voltage:</u> 0 - 30,000V (Depending on the MegaPulse model) <u>Time between pulses:</u> 2 - 1000 seconds <u>Repeat sequences:</u> 0 - 499 times <u>Time between sequences:</u> 0 - 1000 seconds.

NOTE: It is possible to set the time between pulses faster than the charge time of the MegaPulse. Care must be taken to allow enough charging time or the multi-test will be conducted at a lower voltage and stopped. To optimize testing, we suggest running manual tests to become familiar with charging times and then optimize the multi-pulse test times. In addition, it is recommended to practice the multi-pulse options with tests at low voltage until operation is familiar.

Test Sequence:					
1 🔽 Perform	1 Pulse(s) of Positive	▼ polarity. Test Voltage	5000 every 15	seconds	
2 🔽 Perform	1 Pulse(s) of Negative	▼ polarity, Test Voltage	5000 every 15	seconds	
3 🔽 Perform	1 Pulse(s) of Positive	▼ polarity, Test Voltage	5000 every 15	seconds	
Repeat the selec	ted sequences 30 time	 :s.	110		

Figure 34 Multipulse setup screen

- 3. After Multi-Pulse Test Parameters are correctly entered, click the "OK" button to return to the TestMinder Main Screen.
- 4. To conduct the previously set up Multi-Pulse test, click on the "Start" button in the Multi-Pulse Test field. The test starts immediately, and status is shown on the Main Screen (Figure 35). Note that the charge process can be stopped and pause the Multi-Pulse at any time by pressing the Safety "STOP" button, the Multi-Pulse can be stopped by pressing on the bottom left yellow button "Stop Multi-Pulse Test", but if the unit was charging the unit will deliver that pulse, and then stop, "Do not use this button for emergency stop". When a Multi-Pulse test is paused with interlock, the Trigger and Charge buttons start blinking until the "GO" button is pressed and clears the emergency state and continues testing. Care must be taken at this point because the tester might still have charge. Make sure to safely discharge the tester before starting a new sequence to avoid any risk.

StestMinder MP Remote Control S	oftware 1.0	×
Auto Trigger CHARGE	5000 • Energy 367 Joules MegaPulse MPULSE TESTER COMPLIANCE	MULTI-PULSE TEST IN PROGRESS: Pulses 1 Time: 0:00:06 Iffet: 0:00:06
Program: Options Exit Stop Multipulse Test	Charge completed Enter the EUT's serial numbers and/or other information in the fields below before pressing the TEST button: D5PF [123456 (any description) (numbers only)	Safety Interlock Test results will be written to the file shown below: E:\MegaPulse Test.csv Select file

Figure 35 Multipulse test screen

Driver and Software Uninstallation Instructions

This section lists the steps needed to completely remove any Compliance West USA software and driver from your Windows PC.

1. Go to the USBD Installer folder, default location is "C:\Program Files(x86)\USBD Installer". Look for the file named "Install driver.exe" and right click on it then choose "Run as Administrator" (Figure 36).



Figure 36 USBD Installer folder contents

2. On the screen that opens up click on the "Uninstall Tesminder 64 bit Driver" button (Figure 37). A couple of command prompt screens will pop up working on the process, after it is complete they will disappear.



Figure 37 USBD_Installer screen

3. To verify the uninstall process, go ahead and click on "Verify Uninstall", a little pop up screen saying "Uninstall complete" will confirm the uninstallation process was successful (Figure 38).

Driver U	Ininstalled	×
Uninst	all complete	

Figure 38 Uninstall complete screen

4. To remove the TestMinder software, open your "Control Panel" and look for "Programs and features" and click on it. On the next screen arrange the items by "Publisher" and look for the items with "Compliance West USA" as its publisher (Figure 39).

Uninstall or change a p	rogram
To uninstall a program, select i	t from the list and then click Uninstall, C
Organize 🔻 Uninstall/Change	
Name	Publisher
ኛ Tesminder USB PF	Compliance West USA
😹 USBD Installer	Compliance West USA

Figure 39 Programs and features

- 5. Choose each item one by one and click on the "Uninstall/Change" button, it will ask you to confirm the removal process, click "Yes" or "Ok" depending on the screen to finish with the uninstallation.
- 6. Your PC will now be clean of any Compliance West USA software.

AC Setup for TestMinder

WARNING

To prevent damage of the PC you must connect the AC power to a separate line, otherwise the PC can suffer damage due to the High Voltage Output of the MegaPulse Tester.



Correct Connection

Incorrect Connection



Technical Assistance

Technical Assistance from Compliance West USA is available:

Phone: (800) 748-6224 **Hours:** 8:30 AM - 4:30 PM Pacific Time. Also available on our web site at: **www.compwest.com**

Contact:

Compliance West USA 650 Gateway Center Way Suite D San Diego, CA 92102 USA.

Phone: (619) 878-9696 **FAX:** (858) 481-8527