# USER GUIDE AND SPECIFICATIONS NI PMA-1115

#### **Portable Monitor Accessory**

This document includes an overview and specifications for the NI PMA-1115 Portable Monitor Accessory.

## **Overview**

The National Instruments PMA-1115 is a monitor and keyboard accessory for use with NI 8-slot PXI chassis. It includes the following features:

- 15 in. high-brightness TFT LCD touch screen panel
- 105-key English keyboard and touchpad
- Hardware for mounting to NI 8-slot PXI chassis
- Anti-glare tempered glass for LCD protection
- VGA and DVI connectivity to the LCD
- USB connectivity to the touch screen, keyboard, and touchpad
- Sheetmetal construction
- Universal AC/DC power supply with Y-cable for single wall connection
- RoHS compliance

For complete PXI system configuration information, refer to ni.com/pxiadvisor.

# **Shipping Components**

The NI PMA-1115 kit includes the following items:

- NI PMA-1115
- Adapter plate and mounting hardware
- Y-splitter power cable
- 12 V DC/AC power adapter



- Video cabling to connect PMA-1115 to PXI controller
- Right-angle-to-vertical USB cable
- Driver CD
- Cable ties to organize power cabling
- Interlocking fastener to secure power adapter

## Mounting

The NI PMA-1115 includes a complete mounting kit for attachment to any NI 8-Slot PXI chassis. This kit contains an adapter plate with provisions to relocate the carrying handle as well as all required fasteners.

Complete the following instructions to install the NI PMA-1115.

1. Place chassis on its left side, as shown in Figure 1. Remove and discard the bottom feet and screws.

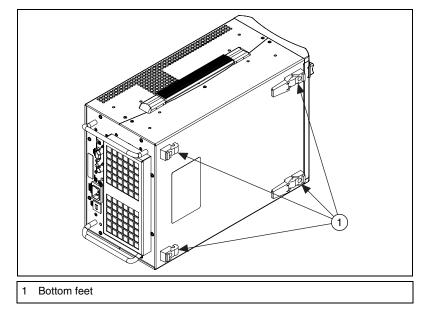


Figure 1. PXI 8-Slot Chassis On Left Side

2. Using a small flat-head screwdriver, carefully remove the handle covers, as shown in Figure 2.

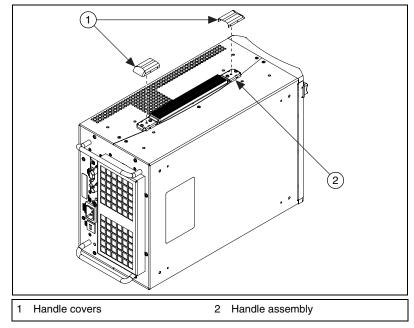


Figure 2. Removing the Handle

- 3. Remove the handle from the chassis. Retain the handle. Discard the screws.
- 4. Attach the adapter plate to the chassis using the supplied  $M4 \times 8$  pan-head screws, as shown in Figure 3.

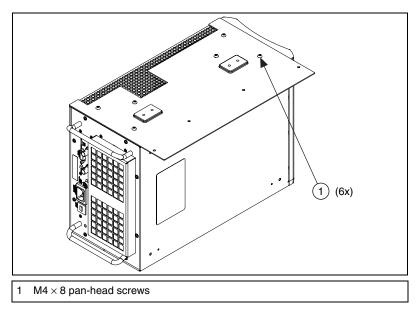


Figure 3. Installing the Adapter Plate

© National Instruments Corporation

NI PMA-1115 User Guide and Specifications

5. Reinstall the handle using the supplied  $4-40 \times 5/16$  pan-head screws, as shown in Figure 4. Reinstall the handle covers by snapping them over the handle mounting plates.

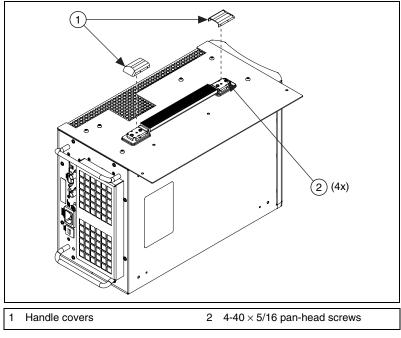


Figure 4. Reinstalling the Handle and Handle Covers

6. Orient the chassis and PMA-1115 as shown in Figure 5. Install the remaining  $M4 \times 8$  pan-head screws.

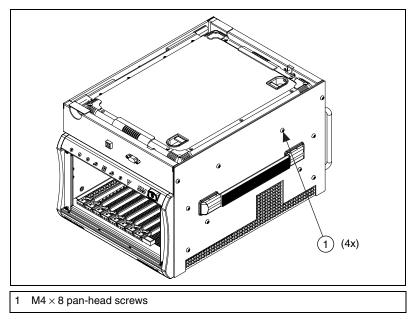


Figure 5. Installing the PMA-1115

7. Open the keyboard and LCD, as shown in Figure 6. Install the supplied  $6-32 \times 3/8$  flat-head screws in the lower corners of the PMA-1115.

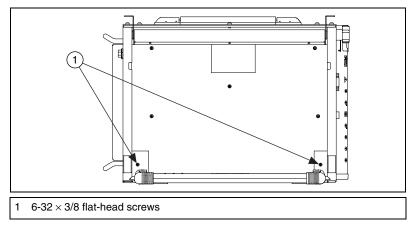


Figure 6. Installing the Lower Mounting Screws

8. If desired, use the provided interlocking fastener to attach the AC adapter to the unit. One suggested location is shown in Figure 7. Cable ties are also provided to organize the power cabling.

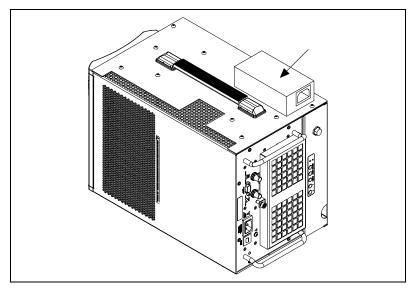


Figure 7. Suggested Location for Attaching AC Adapter

**Note** Do not place the AC adapter over any vent holes on the chassis cover, as this may cause chassis cooling issues.

# **System Configuration**

The On-Screen Display (OSD) controls on the side of the PMA-1115 provide standby functionality, as well as standard video adjustments for the LCD. The touch screen can be configured and calibrated through the TouchKit software found on the provided driver CD.



**Note** The video resolution of the PXI Controller must be set to  $1024 \times 768$  or lower.

# **Ordering Information**

To order the NI PMA-1115 kit or power cords, refer to the following kit numbers.

#### NI PMA-1115 Kit

NI PMA-1115 Portable	
Monitor Accessory	780215-01

#### **Additional Power Cords**

North American 240 VAC	763068-01
Japanese 100 VAC	763634-01
United Kingdom 240 VAC	763064-01
Swiss 220 VAC	763065-01
Australian 240 VAC	763066-01
Universal Euro 240 VAC	763067-01

# **Specifications**

### AC/DC Adapter

	Input	100 to 240 VAC, 47 to 63 Hz, 1.8 A maximum
	Output	12 VDC, 5 A
LCD		
	Input	12 VDC, 5 A
	Туре	TFT LCD touch screen
	Auto-power switch	LCD goes into standby when no signal is present
	Power switch	Left side of product (STDBY)
	Diagonal size	15 in. (38.11 cm)
	Maximum resolution	$1024 \times 768$

Display area	11.97 × 8.98 in. (30.41 × 22.81 cm)
Contrast ratio	500:1
Brightness	300 NTS
Frame rate	60 Hz (typical), 75 Hz (maximum)
Color	16.2 M colors
Viewing angle	160° up and down 160° right and left
Control system	On screen display
Connectivity	VGA or DVI-I

## **Keyboard and Mouse**

Keyboard	105-key, English language
Mouse	Touchpad
Connectivity	USB

#### Mechanical

Overall dimensions	14.75 $\times$ 2.31 $\times$ 11 in. (37.47 $\times$ 5.87 $\times$ 27.94 cm) without mounting plate
Weight	5.0 kg (11 lb)
LCD monitor folding angle	Up to 80°

#### **Environmental**

Maximum altitude	
	(at 25 °C ambient)

Pollution Degree ......2

For indoor use only.

## **Operating Environment**

Ambient temperature range	0 to 50 °C (Tested in accordance with IEC-60068-2-1 and IEC-60068-2-2. Meets MIL-PRF-28800F Class 3 low temperature limit.)
Relative humidity range	10 to 90%, noncondensing. (Refer to Figure 8 for the correlation between temperature and humidity. Tested in accordance with IEC-60068-2-56.)

## **Storage Environment**

Ambient temperature range	20 to 60 °C (Tested in accordance with IEC-60068-2-1 and IEC-60068-2-2.)
Relative humidity range	. 10 to 90%, noncondensing. (Refer to Figure 8 for the correlation between temperature and humidity. Tested in accordance with IEC-60068-2-56.)

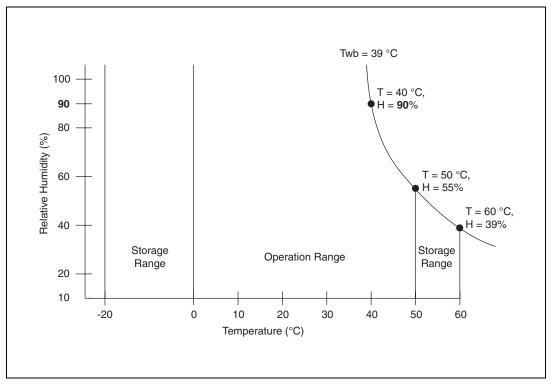


Figure 8. Temperature/Humidity Relationship

#### **Shock and Vibration**

Operational shock	
1	(Tested in accordance with
	IEC-60068-2-27.)

#### **Random Vibration**

Operating ......5 to 500 Hz, 0.31 g<sub>rms</sub>

## Safety

This product is designed to meet the requirements of the following standards of safety for information technology equipment:

- IEC 60950-1, EN 60950-1
- UL 60950-1, CSA 60950-1



 $|\nabla|$ 

M

**Note** For UL and other safety certifications, refer to the product label or visit ni.com/certification, search by model number or product line, and click the appropriate link in the Certification column.

## **Electromagnetic Compatibility**

This product is designed to meet the requirements of the following standards of EMC for electrical equipment for information technology equipment:

- EN 55024, CISPR 24
- EN 55022, CISPR 22
- CE, C-Tick, ICES, and FCC Part 15 Emissions; Class A

Note For EMC compliance, operate this device according to product documentation.

### **CE Compliance**

This product meets the essential requirements of applicable European Directives, as amended for CE marking, as follows:

- 2006/95/EC; Low-Voltage Directive (safety)
- 2004/108/EC; Electromagnetic Compatibility Directive (EMC)

**Note** Refer to the Declaration of Conformity (DoC) for this product for any additional regulatory compliance information. To obtain the DoC for this product, visit ni.com/certification, search by model number or product line, and click the appropriate link in the Certification column.

#### **Environmental Management**

X

e) (40)

National Instruments is committed to designing and manufacturing products in an environmentally responsible manner. NI recognizes that eliminating certain hazardous substances from our products is beneficial not only to the environment but also to NI customers.

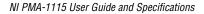
For additional environmental information, refer to the *NI and the Environment* Web page at ni.com/environment. This page contains the environmental regulations and directives with which NI complies, as well as other environmental information not included in this document.

## Waste Electrical and Electronic Equipment (WEEE)

**EU Customers** At the end of their life cycle, all products *must* be sent to a WEEE recycling center. For more information about WEEE recycling centers and National Instruments WEEE initiatives, visit ni.com/environment/weee.htm.

#### 电子信息产品污染控制管理办法 (中国 RoHS)

**中国客户** National Instruments 符合中国电子信息产品中限制使用某些有害物质指令 (RoHS)。 关于 National Instruments 中国 RoHS 合规性信息,请登录 ni.com/environment/rohs\_china。 (For information about China RoHS compliance, go to ni.com/environment/rohs\_china.)



## Where to Go for Support

The National Instruments Web site is your complete resource for technical support. At ni.com/support you have access to everything from troubleshooting and application development self-help resources to email and phone assistance from NI Application Engineers.

National Instruments corporate headquarters is located at 11500 North Mopac Expressway, Austin, Texas, 78759-3504. National Instruments also has offices located around the world to help address your support needs. For telephone support in the United States, create your service request at ni.com/support and follow the calling instructions or dial 512 795 8248. For telephone support outside the United States, contact your local branch office:

Australia 1800 300 800, Austria 43 662 457990-0, Belgium 32 (0) 2 757 0020, Brazil 55 11 3262 3599, Canada 800 433 3488, China 86 21 5050 9800, Czech Republic 420 224 235 774, Denmark 45 45 76 26 00, Finland 358 (0) 9 725 72511, France 01 57 66 24 24, Germany 49 89 7413130, India 91 80 41190000, Israel 972 3 6393737, Italy 39 02 41309277, Japan 0120-527196, Korea 82 02 3451 3400, Lebanon 961 (0) 1 33 28 28, Malaysia 1800 887710, Mexico 01 800 010 0793, Netherlands 31 (0) 348 433 466, New Zealand 0800 553 322, Norway 47 (0) 66 90 76 60, Poland 48 22 3390150, Portugal 351 210 311 210, Russia 7 495 783 6851, Singapore 1800 226 5886, Slovenia 386 3 425 42 00, South Africa 27 0 11 805 8197, Spain 34 91 640 0085, Sweden 46 (0) 8 587 895 00, Switzerland 41 56 2005151, Taiwan 886 02 2377 2222, Thailand 662 278 6777, Turkey 90 212 279 3031, United Kingdom 44 (0) 1635 523545

#### Warranty

The PMA-1115 is warranted against defects in materials and workmanship for a period of one year from the date of shipment, as evidenced by receipts or other documentation. National Instruments will, at its option, repair or replace equipment that proves to be defective during the warranty period. This warranty includes parts and labor.

The media on which you receive National Instruments software are warranted not to fail to execute programming instructions, due to defects in materials and workmanship, for a period of 90 days from date of shipment, as evidenced by receipts or other documentation. National Instruments will, at its option, repair or replace software media that do not execute programming instructions if National Instruments receives notice of such defects during the warranty period. National Instruments does not warrant that the operation of the software shall be uninterrupted or error free.

A Return Material Authorization (RMA) number must be obtained from the factory and clearly marked on the outside of the package before any equipment will be accepted for warranty work. National Instruments will pay the shipping costs of returning to the owner parts which are covered by warranty.

National Instruments believes that the information in this document is accurate. The document has been carefully reviewed for technical accuracy. In the event that technical or typographical errors exist, National Instruments reserves the right to make changes to subsequent editions of this document without prior notice to holders of this edition. The reader should consult National Instruments if errors are suspected. In no event shall National Instruments be liable for any damages arising out of or related to this document or the information contained in it.

EXCEPT AS SPECIFIED HEREIN, NATIONAL INSTRUMENTS MAKES NO WARRANTIES, EXPRESS OR IMPLIED, AND SPECIFICALLY DISCLAIMS ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. CUSTOMER'S RIGHT TO RECOVER DAMAGES CAUSED BY FAULT OR NEGLIGENCE ON THE PART OF NATIONAL INSTRUMENTS SHALL BE LIMITED TO THE AMOUNT THERETOPORE PAID BY THE CUSTOMER. NATIONAL INSTRUMENTS WILL NOT BE LIABLE FOR DAMAGES RESULTING FROM LOSS OF DATA, PROFITS, USE OF PRODUCTS, OR INCIDENTAL OR CONSEQUENTIAL DAMAGES, EVEN IF ADVISED OF THE POSSIBILITY THEREOF. This limitation of the liability of National Instruments will apply regardless of the form of action, whether in contract or tort, including negligence. Any action against National Instruments must be brought within one year after the cause of action accrues. National Instruments shall not be liable for any delay in performance due to causes beyond its reasonable control. The warranty provided herein does not cover damages, defects, malfunctions, or service failures caused by owner's failure to follow the National Instruments installation, operation, or maintenance instructions; owner's modification of the product; owner's abuse, misuse, or negligent acts; and power failure or surges, fire, flood, accident, actions of third parties, or other events outside reasonable control.

#### Copyright

Under the copyright laws, this publication may not be reproduced or transmitted in any form, electronic or mechanical, including photocopying, recording, storing in an information retrieval system, or translating, in whole or in part, without the prior written consent of National Instruments Corporation.

National Instruments respects the intellectual property of others, and we ask our users to do the same. NI software is protected by copyright and other intellectual property laws. Where NI software may be used to reproduce software or other materials belonging to others, you may use NI software only to reproduce materials that you may reproduce in accordance with the terms of any applicable license or other legal restriction.

#### Trademarks

National Instruments, NI, ni.com, and LabVIEW are trademarks of National Instruments Corporation. Refer to the *Terms of Use* section on ni.com/legal for more information about National Instruments trademarks.

Other product and company names mentioned herein are trademarks or trade names of their respective companies.

#### Patents

For patents covering National Instruments products, refer to the appropriate location: **Help**»**Patents** in your software, the patents.txt file on your media, or ni.com/patents.

#### WARNING REGARDING USE OF NATIONAL INSTRUMENTS PRODUCTS

(1) NATIONAL INSTRUMENTS PRODUCTS ARE NOT DESIGNED WITH COMPONENTS AND TESTING FOR A LEVEL OF RELIABILITY SUITABLE FOR USE IN OR IN CONNECTION WITH SURGICAL IMPLANTS OR AS CRITICAL COMPONENTS IN ANY LIFE SUPPORT SYSTEMS WHOSE FAILURE TO PERFORM CAN REASONABLY BE EXPECTED TO CAUSE SIGNIFICANT INJURY TO A HUMAN.

(2) IN ANY APPLICATION, INCLUDING THE ABOVE, RELIABILITY OF OPERATION OF THE SOFTWARE PRODUCTS CAN BE IMPAIRED BY ADVERSE FACTORS, INCLUDING BUT NOT LIMITED TO FLUCTUATIONS IN ELECTRICAL POWER SUPPLY, COMPUTER HARDWARE MALFUNCTIONS, COMPUTER OPERATING SYSTEM SOFTWARE FITNESS, FITNESS OF COMPILERS AND DEVELOPMENT SOFTWARE USED TO DEVELOP AN APPLICATION, INSTALLATION ERRORS, SOFTWARE AND HARDWARE COMPATIBILITY PROBLEMS, MALFUNCTIONS OR FAILURES OF ELECTRONIC MONITORING OR CONTROL DEVICES, TRANSIENT FAILURES OF ELECTRONIC SYSTEMS (HARDWARE AND/OR SOFTWARE), UNANTICIPATED USES OR MISUSES, OR ERRORS ON THE PART OF THE USER OR APPLICATIONS DESIGNER (ADVERSE FACTORS SUCH AS THESE ARE HEREAFTER COLLECTIVELY TERMED "SYSTEM FAILURES"). ANY APPLICATION WHERE A SYSTEM FAILURE WOULD CREATE A RISK OF HARM TO PROPERTY OR PERSONS (INCLUDING THE RISK OF BOILY INJURY AND DEATH) SHOULD NOT BE RELIANT SOLELY UPON ONE FORM OF ELECTRONIC SYSTEM DUE TO THE RISK OF SYSTEM FAILURE. TO AVOID DAMAGE, INJURY, OR DEATH, THE USER OR APPLICATION DESIGNER MUST TAKE REASONABLY PRUDENT STEPS TO PROTECT AGAINST SYSTEM FAILURES, INCLUDING BUT NOT LIMITED TO BACK-UP OR SHUT DOWN MECHANISMS, BECAUSE EACH END-USER SYSTEM IS CUSTOMIZED AND DIFFERS FROM NATIONAL INSTRUMENTS' TESTING PLATFORMS AND BECAUSE A USER OR APPLICATION DESIGNER MAY USE NATIONAL INSTRUMENTS, THE USER OR APPLICATION DESIGNER IS ULTIMATELY RESPONSIBLE FOR VERIFYING AND VALIDATING THE SUITABILITY OF NATIONAL INSTRUMENTS PRODUCTS IN A MANNER NOT EVALUATED OR CONTEMPLATED BY NATIONAL INSTRUMENTS, THE USER OR APPLICATION DESIGNER IS ULTIMATELY RESPONSIBLE FOR VERIFYING AND VALIDATING THE SUITABILITY OF NATIONAL INSTRUMENTS PRODUCTS WHENEVER NATIONAL INSTRUMENTS PRODUCTS ARE INCORPORATED IN A SYSTEM OR APPLICATION DESIGNER IS ULTIMATELY RESPONSIBLE FOR VERIFYING AND VALIDATING THE SUITABILITY OF NATIONAL INSTRUMENTS PRODUCTS WHENEVER NATIONAL INSTRUMENTS PRODUCTS ARE INCORPORATED IN A SYSTEM OR APPLICATION, INCLUDING, WITHOUT LIMITATION, THE APPROPRIATE DESIGN, PROCESS AND SAFETY LEVEL

National Instruments, NI, ni.com, and LabVIEW are trademarks of National Instruments Corporation. Refer to the *Terms of Use* section on ni.com/legal for more information about National Instruments trademarks. Other product and company names mentioned herein are trademarks or trade names of their respective companies. For patents covering National Instruments products, refer to the appropriate location: **Help»Patents** in your software, the patents.txt file on your media, Of ni.com/patents.

© 2008 National Instruments Corporation. All rights reserved.

Apr08

Download from Www.Somanuals.com. All Manuals Search And Download.

Free Manuals Download Website <u>http://myh66.com</u> <u>http://usermanuals.us</u> <u>http://www.somanuals.com</u> <u>http://www.4manuals.cc</u> <u>http://www.4manuals.cc</u> <u>http://www.4manuals.cc</u> <u>http://www.4manuals.com</u> <u>http://www.404manual.com</u> <u>http://www.luxmanual.com</u> <u>http://aubethermostatmanual.com</u> Golf course search by state

http://golfingnear.com Email search by domain

http://emailbydomain.com Auto manuals search

http://auto.somanuals.com TV manuals search

http://tv.somanuals.com