

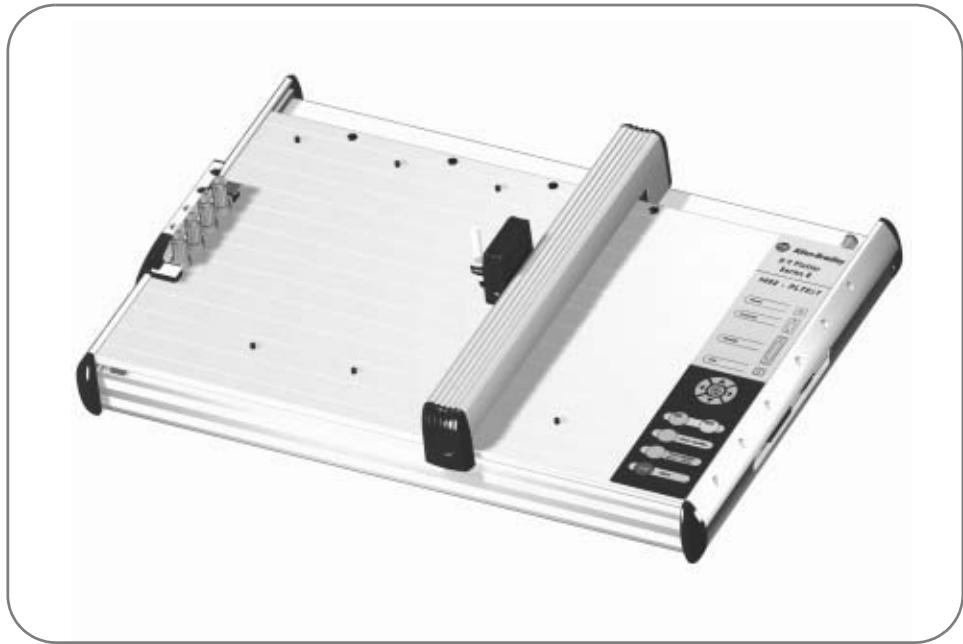
# Plotter Kit



**Allen-Bradley**

Catalog Numbers 1492-PLTKIT

## User Manual



## Important User Information

Because of the variety of uses for the products described in this publication, those responsible for the application and use of this control equipment must satisfy themselves that all necessary steps have been taken to assure that each application and use meets all performance and safety requirements, including any applicable laws, regulations, codes and standards.

The illustrations, charts, sample programs and layout examples shown in this guide are intended solely for purposes of example. Since there are many variables and requirements associated with any particular installation, Allen-Bradley does not assume responsibility or liability (to include intellectual property liability) for actual use based upon the examples shown in this publication.

Allen-Bradley publication SGI-1.1, *Safety Guidelines for the Application, Installation and Maintenance of Solid-State Control* (available from your local Allen-Bradley office), describes some important differences between solid-state equipment and electromechanical devices that should be taken into consideration when applying products such as those described in this publication.

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Throughout this manual we use notes to make you aware of safety considerations:



**ATTENTION:** Identifies information about practices or circumstances that can lead to personal injury or death, property damage or economic loss

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Attention statements help you to:

- identify a hazard
- avoid a hazard
- recognize the consequences

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**IMPORTANT** Identifies information that is critical for successful application and understanding of the product.

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**Notes:**

# Preface

## Overview of this Manual

This manual describes how to use components of the Allen-Bradley Plotter Kit to create and print markers for Bulletin 1492 Terminal Blocks and accessories.

The following table describes the contents of this manual.

Chapter	Title	Contents
	Preface	Provides an overview of the manual.
1	Marking System Description	Provides a brief overview of the hardware and software. Includes a description of system accessories.
2	Operation of Plotter	Describes plotter controls.
3	Initial Setup	Describes initial plotter setup.
4	Troubleshooting and Maintenance	Provides assistance in identifying and correcting common operating problems. Procedures for routine maintenance items are also provided.

**Note:** Refer to the ABPLOT Software Manual for software installation and setup.



**At the end of its life, this equipment should be collected separately from any unsorted municipal waste**

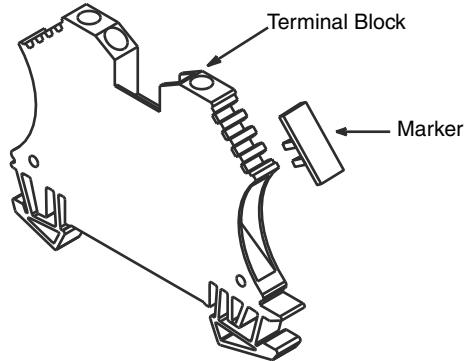
## Intended Audience

Basic knowledge of the Microsoft Windows™ Operating System is required to operate the 1492-PLTKIT Plotter System. For ABPLOT software instructions, refer to the user's manual contained within the ABPLOT software.

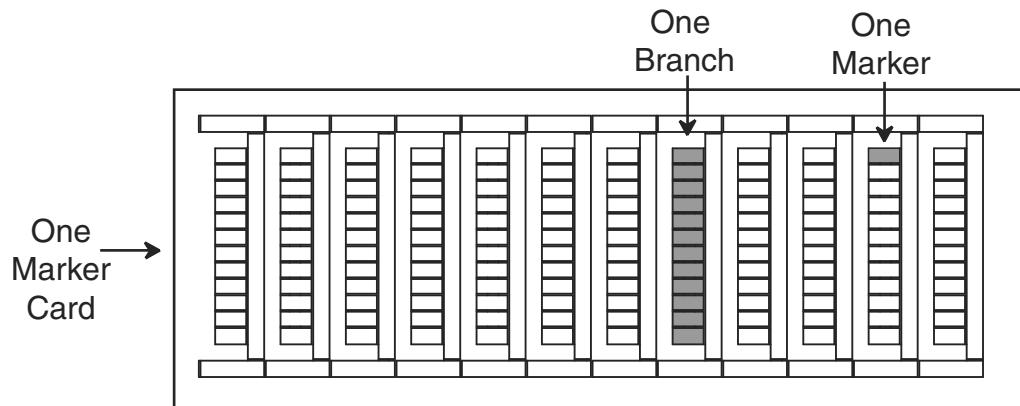
## Conventions

This manual uses the following conventions:

- Allen-Bradley Marking System software is referred to as ABPLOT.
- Marker refers to the individual tabs that snap onto a terminal block.



- A marker card is a set of multiple markers. See Table 1.A for more information on marker cards.



# Marking System Description

## Chapter Objectives

This chapter describes:

- Marking System components
- Marker Cards
- Marker types
- Accessories

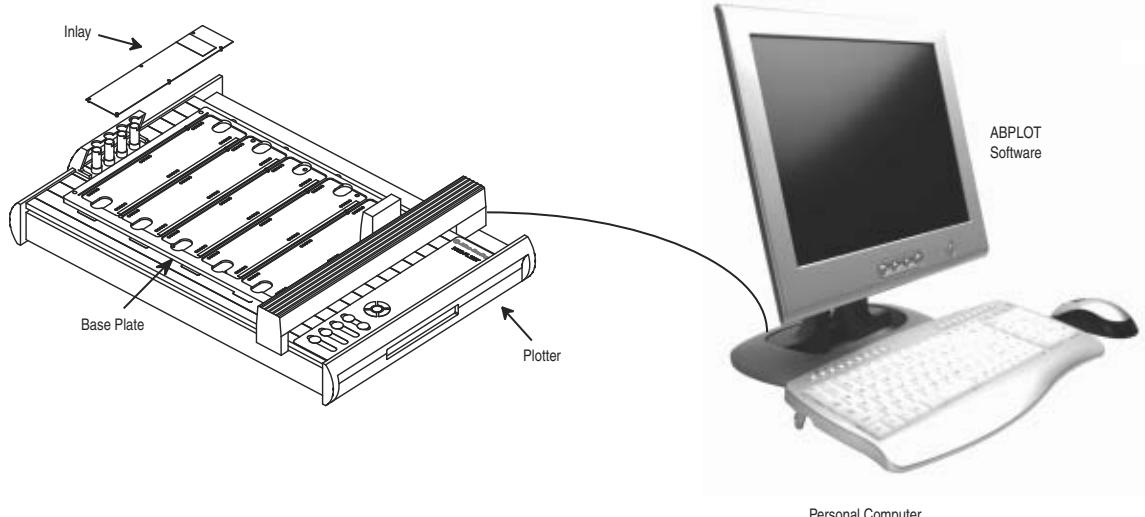
## Marking System Components

The Terminal Block Marking System kit (Catalog No. 1492-PLTKIT) includes:

- Allen-Bradley Marking System (ABPLOT) Software
- Plotter
- Base Plate\*
- Stainless-Steel Inlay (5)
- Disposable Pen
- Parallel Communications Cable (connects personal computer to plotter)
- Power Cable
- Plotter User Manual (this document)
- 220V Adapter

In addition, you need:

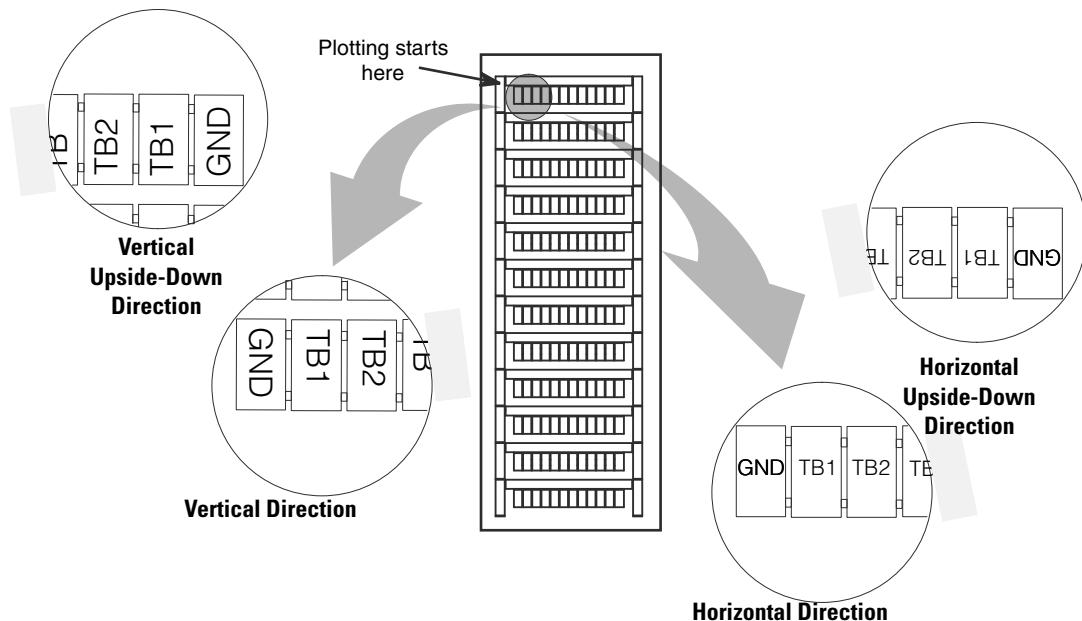
- Personal computer
- Marker Cards (See Table 1.A)



\* A special plate, 1492-PLOTPLTA, is needed for the following markers: 1492-MW5-21, 1492-MW6-21, 1492-MW7-21).

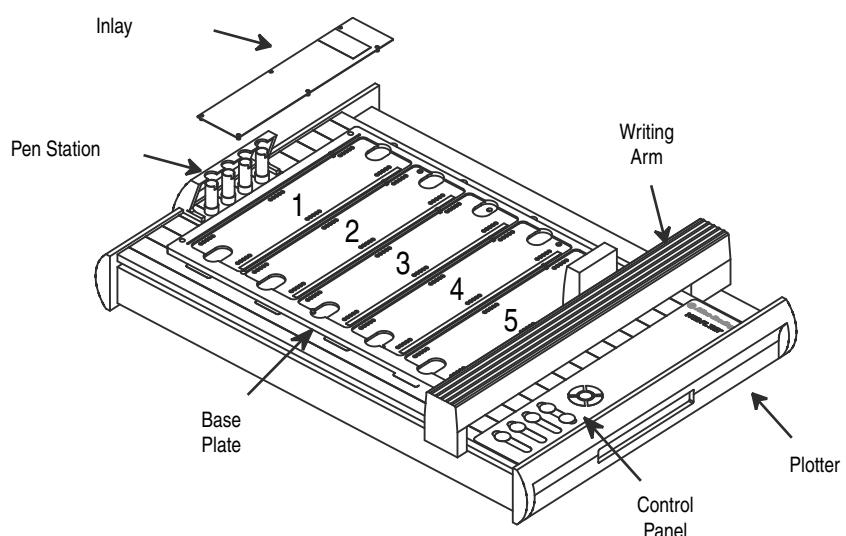
## Marker Cards

Allen-Bradley markers can be printed in either a horizontal or vertical direction. The ABPLOT software displays a view of the markers as they would appear on the plotter.



Plotting always starts in the upper left corner of the marker card.

The plotter base plate has spaces for 5 marker cards. Spaces are numbered 1 to 5, from left to right.



The inlay may be installed in the base plate at different heights by lining up the number (1 to 5) of the inlay with the red locating rib of a given space.

## Marker Types

The marking system supports a variety of marker types.

**Table 1.A**  
**Allen-Bradley Markers for Allen-Bradley Products**

Marker/Label Catalog No.	Use With These Allen-Bradley Terminal Blocks and Other Products
1492-M3X12	<b>1492-L2, 1492-L2T, 1492-L20, 1492-LD2, 1492-LD2C, 1492-LG2, 1492-LG2T, 1492-LG2Q, 1492-LDG2, 1492-LDG2C</b>
1492-M3X5	1492-L2, 1492-L2T, 1492-L20, 1492-LD2, 1492-LD2C, 1492-LG2, 1492-LG2T, 1492-LG2Q, 1492-LDG2, 1492-LDG2C, 1738-OB16EM12, 1738-OB16E25DS, 1738-OB16E19M23, 1738-IB16DM12
1492-M5X5	<b>1492-CPL, 1492-FPK2..., 1492-J3, 1492-J10, 1492-J16, 1492-J35, 1492-J50, 1492-J70, 1492-JD3, 1492-J20, 1492-J3TW, 1492-JD3C, 1492-J3F, 1492-JD3F, 1492-JG20, 1492-JG3, 1492-JG3TW, 1492-JDG3, 1492-JDG3C, 1492-JKD3, 1492-JKD3TP, 1492-J3P, 1492-J3PTP, 1492-JD3P, 1492-JD3PTP, 1492-JD3PSS, 1492-JD3PSSTP, 1492-JDG3P, 1492-JDG3PTP, 1492-JDG3PSS, 1492-JDG3PSSTP, 1492-JD3DF*, 1492-JD3DR*, 1492-JD3RB*, 1492-JD3RC001, 1492-JD3SS, 1492-JTC3*, 1492-JC3, 1492-JDC3, <b>1492-LMJ3, 1492-LMJ3Q, 1492-LM3, 1492-LM3Q, 1492-LMG3, 1492-LMG3Q, 1492-LMP3, 1492-LMP3Q</b>, 1492-L3, 1492-L3T, 1492-L3Q, 1492-LD3, 1492-L3QS, 1492-LTF3, 1492-LD3C, 1492-LS2-3, 1492-LS2-3L, 1492-LSG2-3, 1492-LS2-4, 1492-LS2-4L, 1492-LSG2-4, 1492-LG3, 1492-LG3T, 1492-LG3Q, 1492-LDG3, 1492-LDG3C, 1492-LKD3, 1492-L3P, 1492-LDG3P, 1492-LDAG3, 1492-LC3, 1492-LCDC3, 1492-FB* Fuse Blocks</b>
1492-M5X8	1492-JD3, 1492-JD3C, 1492-JD3F, 1492-JDG3, 1492-JDG3C, 1492-JD3DF*, 1492-JD3DR*, 1492-JD3RB*, 1492-JD3RC001, 1492-JD3SS
1492-M5X10	<b>1492-ERL35, 1492-LM3Q, 1492-LMG3, 1492-LMJ3, 1492-LMJ3Q, 1492-LMP3, 1492-LMP3Q, 1492-L3, 1492-L3T, 1492-L3Q, 1492-LD3, 1492-L3QS, 1492-LD3C, 1492-LG3, 1492-LG3T, 1492-LG3Q, 1492-LDG3, 1492-LDG3C, 1492-LKD3, 1492-L3P, 1492-LC3, 1492-LDC3, Bulletin 931 Signal Conditioners, 1492-JD3P, 1492-LM3, 1492-LDG3P, 1492-LDAG3</b>
1492-M5X12	1492-J3F, 1492-JG20, 1492-JG3, 1492-JG3TW, 1492-JKD3, 1492-JKD3TP, 1492-J3P, 1492-J3PTP, 1492-JTC3*, 1492-JC3, 1492-JDC3, 1492-J3, 1492-J20, 1492-J3TW
1492-M5X15	<b>1492-ERL15, 1492-LMP3Q</b>
1492-M5X30	1492-WGB5
1492-M6X5	<b>1492-EAJ15, 1492-J4, 1492-JG4, 1492-L4, 1492-L4T, 1492-L4Q, 1492-LD4, 1492-LD4C, 1492-LG4, 1492-LG4T, 1492-LG4Q, 1492-LDG4, 1492-LDG4C, 1492-LD4DF, 1492-LD4DR, 1492-LD4RB*, 1492-LD4SS, 1492-J4M</b>
1492-M6X10	<b>1492-L4, 1492-L4T, 1492-L4Q, 1492-LD4, 1492-LD4C, 1492-LG4, 1492-LG4T, 1492-LG4Q, 1492-LDG4, 1492-LDG4C, 1492-LD4DF, 1492-LD4DR, 1492-LD4RB*, 1492-LD4SS, Bulletin 931 Signal Conditioners</b>
1492-M6X12	1492-J4, 1492-JG4, 1492-J4M, 1492-L6, 1492-L6T, 1492-L10, 1492-LG6, 1492-LG6T, 1492-LG10, 1492-EAJ35

**Table 1.A**  
**Allen-Bradley Markers for Allen-Bradley Products**

Marker/Label Catalog No.	Use With These Allen-Bradley Terminal Blocks and Other Products
1492-M7X12	<b>1492-EAJ35, 1492-EAHJ35, 1492-H4, 1492-H5, 1492-H6, 1492-H7, 1492-J6, 1492-J10, 1492-J16, 1492-J35, 1492-J50, 1492-J70, 1492-J120, 1492-JG6, 1492-JG10, 1492-JG16, 1492-JG35, 1492-JG50, 1492-JG70, 1492-JG120, 1492-L16, 1492-L16D, 1492-L35, 1492-LG16, 1492-LG35</b>
1492-M8X5	1492-J6, 1492-J10, 1492-J16, 1492-J35, 1492-J50, 1492-J70, 1492-JG6, 1492-JG10, 1492-JG16, 1492-JG35, 1492-JG50, 1492-JG70, 1492-L6, 1492-L6T, 1492-L10, 1492-L16, 1492-L16D, 1492-L35, 1492-LG6, 1492-LG6T, 1492-LG10, 1492-LG16, 1492-LG35
1492-MR5X8	<b>1492-J3, 1492-JD3, 1492-JD3C, 1492-JD3F, 1492-JDG3, 1492-JDG3C, 1492-JD3DF*, 1492-JD3DR*, 1492-JD3RB*, 1492-JD3RC001, 1492-JD3SS, 1492-L3</b>
1492-MR6X8	<b>1492-J4, 1492-J4M, 1492JG4, 1492-L4T, 1492-L40, 1492-LD4, 1492-LD4C, 1492-LG4, 1492-LG4T, 1492-LG40, 1492-LDG4, 1492-LDG4C, 1492-LD4DF, 1492-LD4DR, 1492-LD4RB*, 1492-LD4SS, 1492-L6, 1492-L6T, 1492-L10, 1492-LG6, 1492-LG6T, 1492-LG10, 1492-EAJ35</b>
1492-MR5X12	<b>1492-J20, 1492-J3, 1492-J3TW, 1492-J3F, 1492-JG20, 1492-JG3, 1492-JG3TW, 1492-JKD3, 1492-JKD3TP, 1492-J3P, 1492-J3PTP, 1492-JTC3*, 1492-JC3, 1492-JDC3</b>
1492-MR6X12	<b>1492-J4, 1492-JG4, 1492-J4M, 1492-L6T, 1492-L10, 1492-LG6, 1492-LG6T, 1492-LG10</b>
1492-MR8X12	<b>1492-J6, 1492-J10, 1492-J16, 1492-J35, 1492-J50, 1492-J70, 1492-J120, 1492-J240, 1492-JG10, 1492-JG16, 1492-JG35, 1492-JG50, 1492-JG70, 1492-JG120, 1492-L6, 1492-L6T, 1492-L10, 1492-L16, 1492-L16D, 1492-L35, 1492-LG6, 1492-LG6T, 1492-LG10, 1492-LG16, 1492-LG35</b>
1492-MC4X5	Some terminal blocks from Murr and Phoenix Contact
1492-MC5X5	Some terminal blocks from Murr and Phoenix Contact
1492-MC6X5	1492-FB* fuse blocks, some terminal blocks from Murr and Phoenix Contact
1492-MC7X5	Some terminal blocks from Phoenix Contact
1492-MC5X4	Some terminal blocks from Phoenix Contact
1492-MC5X8	Some terminal blocks from Entrelec, Phoenix Contact, Telemecanique, Wieland
1492-MC5X10	Some terminal blocks from Entrelec, Phoenix Contact, Telemecanique, Wieland
1492-MC5X12	Some terminal blocks from Entrelec, Phoenix Contact, Telemecanique, Wieland
1492-MC6X10	<b>Bulletin 700-HL relays</b> , Some terminal blocks from Entrelec, Phoenix Contact, Telemecanique, Wieland
1492-MC8X10	<b>Bulletin 700-HL relays</b> , Some terminal blocks from Entrelec, Phoenix Contact, Telemecanique, Wago, Wieland
1492-MCS7X10	Some terminal blocks from Siemens

**Table 1.A**  
**Allen-Bradley Markers for Allen-Bradley Products**

<b>Marker/Label Catalog No.</b>	<b>Use With These Allen-Bradley Terminal Blocks and Other Products</b>
1492-MCS5X10	Some terminal blocks from Siemens
1492-MCS6X10	Some terminal blocks from Siemens
1492-MCS7X7	Some terminal blocks from Siemens
1492-MCS5X8	Some terminal blocks from Siemens
1492-MCS6X8	Some terminal blocks from Siemens
1492-MCW4X9	Some terminal blocks from Murr and Wago
1492-MCW5X9	Some terminal blocks from Murr and Wago
1492-MCW5X9F	Some terminal blocks from Murr and Wago
1492-MCW5X5	Some terminal blocks from Murr and Wago
1492-MCW6X9	Some terminal blocks from Murr and Wago
1492-MH5X10	<b>1492-L3, 1492-L3T, 1492-L3Q, 1492-L3QS, 1492-LG3, 1492-LG3T, 1492-LG3Q, 1492-LC3, 1492-LMJ3, 1492-LMJG3, 1492-LM3Q, 1492-LMG3, 1492-LMP3, 1492-LMP3Q</b>
1492-MH5X15	<b>1492-L3, 1492-L3T, 1492-L3Q</b> 1492-L10, 1492-L16, 1492-L16D, 1492-L35, <b>1492-LG3, 1492-LG3T, 1492-LG3Q</b> , 1492-LG10, 1492-LG16, 1492-LG35
1492-MH6X12	<b>1492-L4, 1492-L4T, 1492-L4Q, 1492-L6, 1492-L6T, 1492-LG4, 1492-LG4T, 1492-LG4Q, 1492-LG6, 1492-LG6T</b>
1492-MN81	<b>1492-HM1, 1492-HM2, 1492-HM3, 1492-CB*</b>
1492-MN83	<b>1492-CB*</b> , 1492-HM3
1492-MAS9X17	<b>Any equipment (self-adhesive)</b>
1492-MAS6X15	<b>Bulletin 700 relays, any equipment (self-adhesive)</b>
1492-MAS9X11	<b>1760-Pico, any equipment (self-adhesive)</b>
1492-MS5X5	<b>1492-WM3, 1492-WMD1</b>
1492-MS5X9	<b>1492-WR3, 1492-WTF3*, 1492-WTS3*</b> , 700-HA, Bulletin 800F contact blocks
1492-MS5X12	<b>1492-W3</b> , 700-HA
1492-MS6X9	<b>1492-RFB4*, 1492-RAFB4*, 1492-WM4, 1492-WMG4, 1492-W4TW</b> , 700-HA
1492-MS6X12	<b>1492-W4, 1492-W6</b> , 1492-W10 1492-W16S, <b>1492-WG4, 1492-WG6</b> , 1492-WG10S, 1492-WG16S, 700-HA
1492-MS8X9	700-HA, <b>1492-H4, 1492-H5, 1492-H6, 1492-H7, 1492-H8, 1492-WFB4*</b>
1492-MS8X12	<b>1492-H4, 1492-H5, 1492-H6, 1492-H7, 1492-RFB4*, 1492-RAFB4*, 1492-W10, 1492-WFB4*, 700-HA, 1492-W165, 1492-WG10, 1492-WG165</b>
1492-MS8X17	<b>700-HN204, 700-HN205</b>
1492-MS9X20	<b>1667 PanelConnect</b>
1492-MS10X17	<b>100-C, 100-D, 700-CF, 140, 193-E1, 193-E3, 1492-REC*</b>

**Table 1.A**  
**Allen-Bradley Markers for Allen-Bradley Products**

Marker/Label Catalog No.	Use With These Allen-Bradley Terminal Blocks and Other Products
1492-MW9X24	<b>Wire/cable from 6 AWG (from 16.0 mm<sup>2</sup>)</b>
1492-MW10X23	<b>Wire/cable from 6 AWG (from 16.0 mm<sup>2</sup>)</b>
1492-MW14X23	<b>Wire/cable from 6 AWG (from 16.0 mm<sup>2</sup>)</b>
1492-MW11X60	<b>Wire/cable from 6 AWG (from 16.0 mm<sup>2</sup>)</b>
1492-MW5-21	<b>#12...10 AWG (4.0...6.0 mm<sup>2</sup>) wire</b>
1492-MW6-21	<b>#10...8 AWG (6.0...10.0 mm<sup>2</sup>) wire</b>
1492-MW7-21	<b>#8...6 AWG (10.0...16.0 mm<sup>2</sup>) wire</b>
1492-MWC1-21	<b>#20...18 AWG (0.5...1.0 mm<sup>2</sup>) wire</b>
1492-MWC3-21	<b>#18...14 AWG (0.75...2.5 mm<sup>2</sup>) wire</b>
1492-MWC4-21	<b>#12 AWG (2.5...4.0 mm<sup>2</sup>) wire</b>
1492-MWC1-12	<b>#20...18 AWG (0.5...1.0 mm<sup>2</sup>) wire</b>
1492-MWC3-12	<b>#18...14 AWG (0.75...2.5 mm<sup>2</sup>) wire</b>
1492-MWC4-12	<b>#12 AWG (2.5...4.0 mm<sup>2</sup>) wire</b>
1492-SM5X10	1492-JD3P, 1492-JD3PTP, 1492-JD3PSS, 1492-JD3PSSTP, 1492-JDG3P, 1492-JDG3PTP, 1492-JDG3PSS, 1492-JDG3PSSTP, <b>1492-K2, 1492-K2T, 1492-K2Q, 1492-KG2, 1492-KG2T, 1492-KG2Q,</b> <b>1492-K2KD, 1492-K2P, 1492-KD2, 1492-KD2C, 1492-KD2*,</b> <b>1492-KW2, 1492-KWG2, 1492-LTF3, 1492-MAK2</b>
1492-SM6X10	<b>1492-K3, 1492-K3T, 1492-K3Q, 1492-KG3, 1492-KG3T, 1492-KG3Q,</b> <b>1492-K3KD, 1492-K3P, 1492-KW3, 1492-KWG3</b>
1492-M5X30	<b>1492-GMC</b>

- ❶ Catalog numbers in bold indicate the preferred marker.
- ❷ Catalog numbers in italics indicate the corner markers of a spring-clamp terminal block.
- ❸ Many bulletin number 1492-M markers have identical mounting feet, resulting in the ability to use many different types of markers in a given product.

## ABPLOT Software

ABPLOT software is a Microsoft Windows-based program that creates files containing marker card layouts. These files contain all the information to print multiple base plates full of marker cards. See Table 1.B lists the available marking system accessories.

## Accessories

**Table 1.B Accessories**

Item	Catalog No.	Description
Disposable Pen	1492-PLOTPEN25	Disposable ink pen with Ø0.25 mm tip
Disposable Pen	1492-PLOTPEN35	Disposable ink pen with Ø0.35 mm tip
Disposable Pen	1492-PLOTPEN25s	Disposable ink pen with Ø0.25 mm tip - Slow drying ink
Pen Adapter	1492-PLOTADPT	Pen adapter for use with Sharpie™ Ultra Fine Point Pen ①
Pen Station Service Kit ②	1492-PLOTSERV	Pen Station Service Kit for replacing pen priming tabs and ink-coated pen sealing units
Base Plate	1492-PLOTPLT	Base plate for the plotter
Plotter Software ②	1492-PLOTSOFT	CD of ABPLOT Software
Single Plate	1492-PLOTPLTA	Single plate used with wire markers (not included in plotter kit)

① Recommended when plotting 12-point font or larger.

② The latest software can be downloaded at: [www.ab.com/industrialcontrols/products](http://www.ab.com/industrialcontrols/products). Select "Terminal Blocks and Wiring Systems" and click on "Marking Systems & Accessories."

**IMPORTANT**

It is important to only use the above accessories with the plotter. Use of other accessories may damage the plotter.

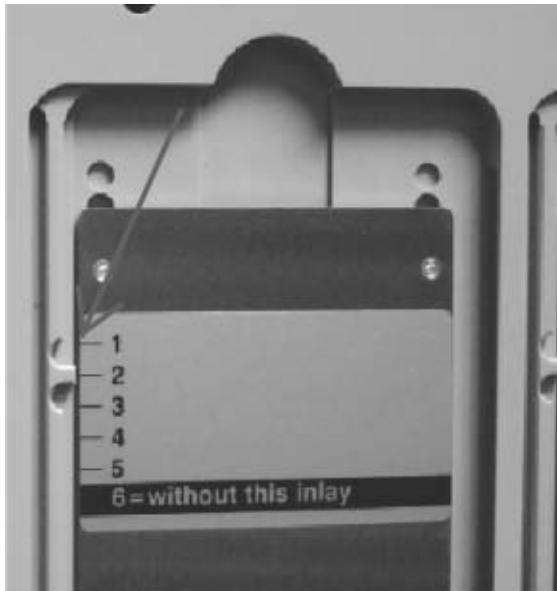
**Table 1.C Inlay Spacer Settings**

<b>Marker Card</b>	<b>Inlay Position Number</b>
1492-M3X5	3
1492-M3X12	2
1492-M5X5	3
1492-M5X8	2
1492-M5X10	2
1492-M5X12	2
1492-M5X15	2
1492-M5X30	3
1492-M6X5	3
1492-M6X10	2
1492-M6X12	2
1492-M7X12	2
1492-M8X5	3
1492-MAS6X15	5
1492-MAS9X11	5
1492-MAS9X17	5
1492-MC4X5	4
1492-MC5X4	2
1492-MC5X5	4
1492-MC5X8	1
1492-MC5X10	1
1492-MC5X12	1
1492-MC6X5	4
1492-MC6X10	1
1492-MC7X5	2
1492-MC8X10	1
1492-MCS5X8	3
1492-MCS5X10	3
1492-MCS6X8	3
1492-MCS6X10	3
1492-MCS7X7	3
1492-MCS7X10	3
1492-MCW4X9	4
1492-MCW5X5	4
1492-MCW5X9	4

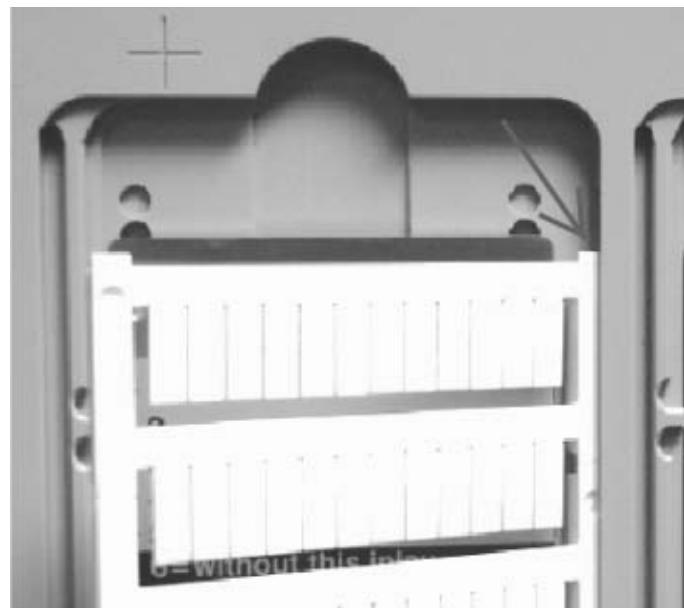
**Table 1.C Inlay Spacer Settings**

<b>Marker Card</b>	<b>Inlay Position Number</b>
1492-MCW5X9F	3
1492-MCW6X9	4
1492-MH5X10	6
1492-MH5X15	6
1492-MH6X12	6
1492-MN81	1
1492-MN83	1
1492-MR5X8	2
1492-MR5X12	2
1492-MR6X8	2
1492-MR6X12	2
1492-MR8X12	2
1492-MS5X5	2
1492-MS5X9	1
1492-MS5X12	6
1492-MS6X9	1
1492-MS6X12	1
1492-MS8X9	1
1492-MS8X12	1
1492-MS8X17	2
1492-MS9X20	2
1492-MS10X17	3
1492-MW9X24	5
1492-MW10X23	5
1492-MW11X60	5
1492-MW14X23	5
1492-MWC1-12	1
1492-MWC1-21	1
1492-MWC3-12	1
1492-MWC3-21	1
1492-MWC4-12	1
1492-MWC4-21	1
1492-SM5X10	2
1492-SM6X10	2

1. Line up the number on the inlay with the notched locator on the base plate.
2. Slide right side of marker card under ledge on plotter plate.
3. Line-up first notch on the left side of the marker card to the notch on the plotter plate.
4. Press the left side on the marker card down on to the plotter plates. For plotter plates with the adhesive strip, refer to Adhesive Strip Preparation on page A-1.



Installing Inlay onto Plate



Installing Marker Card onto Plate

**Table 1.D Inlay Spacer Requirement Using Special Plate, 1492-PLOTPLTA**

Marker Card	Inlay
1492-MW5-21	Inlay needed
1492-MW6-21	No inlay needed
1492-MW7-21	No inlay needed

# Operation of Plotter

## Chapter Objectives

This chapter covers:

- Operation
- ON/OFF Buttons
- Clear Buffer
- Pen Station Open/Close Button
- Stop/View Button

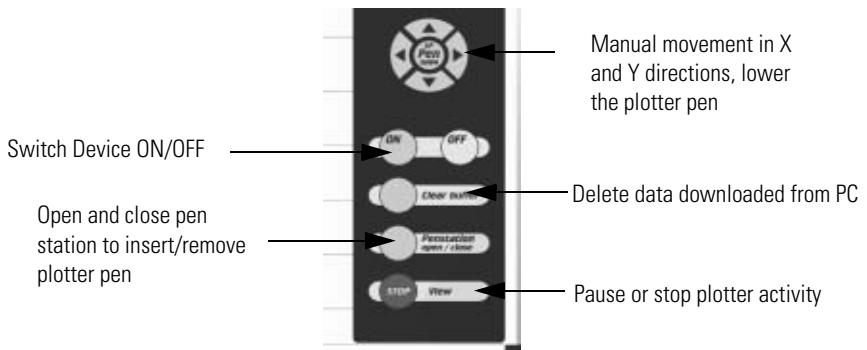
## Operation

Once you have installed the plotter and connected the power supply and data cable, you may switch the plotter on.

### IMPORTANT

Before switching the device on, please ensure there are no objects on the writing/plotting area which might prevent the writing arm from moving freely.

All settings and commands are entered using the control panel.



## ON/OFF Buttons

The ON/OFF buttons are used to activate and deactivate the device. When the plotter is switched on, the writing arm moves to the top right-hand corner of the labeling area. The green light comes on when the system is ready for use and ready to receive data from the PC.

## Clear Buffer

If the plotter contains data, the yellow light will come on. You can delete this data by first making sure the system is in the stop mode (red light on). The

stop mode is entered by pressing the “Stop” button. Then delete the data by pressing the “Clear Buffer” button.

### Pen Station Open/Close Button

Pressing the “Pen Station Open/Close” button will operate the pen station. A pen must be installed in the bottom location prior to plotting (unless ABPLOT software has pen selection set to “no,” in which case the pen must be installed manually in the plotter arm).

---

**IMPORTANT**

Only 1492-PLOTPEN 25 and 1492-PLOTPEN 35 plotter pens may be used, as the sealing system is designed specifically for these plotter pens.

When using the 1492-PLOTADPT, the ABPLOT software must be the pen selection set to “No.”

Using other plotter pens and writing instruments may damage the device.

---

Operation of the pen station is only possible when the system is in the stop mode. When the pen station has been opened, you can insert the plotter pens into the corresponding storage holders and then re-close the pen station by pressing the “Pen Station Open/Close” button again.

---

**IMPORTANT**

Do not leave the pen station open for extended periods, as the pens will dry out.

---

You may leave the plotter pens in the pen station because the optimized seal largely prevents the pens from drying out. If the storage holders become soiled over time, replace them with the 1492-PLOTSERV kit.

### Stop/View Button

If the “Stop/View” button is activated while the plotter is in action, the job will pause immediately and the plotter pen will recalibrate, return the pen to the pen station, and the writing arm will return to the right-hand corner. The red light will signal the interruption. Pressing the “Stop/View” button again will cause the plotter to continue plotting where it left off. The red light will go out.

---

**IMPORTANT**

Inserting a pen into the writing arm holder by hand can result in the writing arm inadvertently moving the writing arm and compromise calibration.

After inserting the pen, press the “Stop/View” button twice in succession to recalibrate the system.

---

## Cursor and Pen Up/Down Buttons

The “Cursor” buttons are used to move the writing arm manually in all directions.

The “Pen Up/Down” buttons lowers and raises the plotter pen. To raise or lower the pen, the system must be in the stop mode.

---

### IMPORTANT

These key functions are not used for normal operation.  
They are intended solely for service functions.

---

Open the pen station before using the plotter. Insert the plotter pen into the pen station and then close the pen station

**Notes:.**

## Initial Setup

### Chapter Objectives

This chapter shows how to:

- Set up the Plotter
- Calibrate the Plotter

### Setup

#### Location

A dry, dust-free room is the ideal environment for the plotter. If possible, do not install the device in damp or very dusty areas. Do not expose the system to direct sunlight. Please ensure the connections on the right-hand side of the device are accessible all times. Position the plotter firmly on the work surface where it is to be used, ensuring it is level. Please ensure the writing arm can move freely and is not obstructed by other objects.

#### Connections

1. Install the power cord and plug into outlet.

The plotter power supply features a variable AC input voltage of 100 to 240V AC/50...60 Hz. The power connection can be replaced by way of adapter plugs, as required.

2. Connect the plotter to the computer using either a USB cable or the parallel cable provided. The respective ports are located on the right-hand side of the plotter.

## Installing a Pen in the Pen Station

1. Turn the power on by pressing the “On” button,
2. Press the “Pen Station open/close” button. This will lower the pen stations to allow a pen to be placed in the station
3. Follow the pen instructions for use on the 1492-PLOTPEN25 or 1492-PLOTPEN35 box by: assembling the pen point to ink cartridge, shaking pen back and forth to activate ink.
4. Insert pen into pen station. The default pen station is #1 (closest to user.)

---

**IMPORTANT**

It is important only the 1492-PLOTPEN25 or 1492-PLOTPEN35 pens be installed in the pen station. Use of a different pen may result in damage to the pen or plotter.

---

5. Press the “Pen Station open/close” button. This will close the pen station, sealing it in place. You are now ready to plot.

## Removing a Pen from the Pen Station

1. Press the “Pen Station open/close” button. This will open the pen stations to allow a pen to be removed.
2. Remove the pen from the pen station. Place the cap on the pen.
3. Press the “Pen Station open/close” button. This will close the pen station.
4. Turn the power off by pressing the “Off” button.

## Plotting with the 1492-PLOTADPT

The 1492-PLOTADPT allows the user to plot with a standard Sharpie™ UltraFine point marker (which can be purchased in various colors). The pen station will not hold this accessory, so the next process must be followed:

1. Open ABPLOT software.
2. Create the marker layout you desire.
3. In the software, select “Plot,” then “Settings.”
4. Set “Pen selection” to “No.” This will cause the plotter to plot without taking a pen from the pen station.
5. Carefully install the 1492-PLOTADPT (with the Sharpie™ pen affixed to it) in the arm of the plotter, being careful not to move the plotter arm while performing this operation.
6. Begin plotting as usual with the ABPLOT software. Note the pen will have to be manually removed when you have finished plotting.

## Calibration

1. Using ABPLOT software, adjust the calibration such that the pen is placed the “+” on the base plate.
2. Try marking on a marker card by placing an “X” in the four corner markers. If the “X” is centered on the four markers, calibration is complete. If the mark must be shifted, repeat steps 1 and 2, but adjust the calibration so that the pen is offset from the “+” on the calibration plate by the distance required to center the “X” on the markers.
3. If the top left marker is centered, but the top right, bottom left or bottom right is not centered, refer to the “Edit Marker Card Configuration” in the ABPLOT software

**Notes:**

## Troubleshooting and Maintenance

### Chapter Objectives

This chapter describes how to:

- Troubleshoot the marking system
- Perform routine maintenance
- Clean the plotter pens
- Technical Specifications

### Using the Troubleshooting Chart

Table 4.A is a troubleshooting chart. This chart lists the most common operating problems, probable causes, and steps to correct the problem. If you encounter a problem that is not listed in the table, contact Rockwell Automation Technical Support at (440) 646-3434, options: 3, 2, 4, 2, 5.

### Required Equipment

A voltmeter is required for verifying that the correct voltage is supplied to the plotter. The voltmeter is also required for verifying the correct communications cable configuration.

**Table 4.A Troubleshooting Chart**

Problem	Probable Cause(s)	Corrective Action(s)
Plotter does not power up.	1. Plotter not plugged in. 2. Improper connection to power source.	1. Verify that plotter is plugged in. 2. Verify 110/220 VAC, 50/60 Hz voltage at power source.
No communications between plotter and computer.	1. Faulty communications cable. 2. Wrong COM or USB port selected. 3. USB plugged in upside down.	1. Check cable connections. 2. Verify cable is plugged into COM or USB port selected in ABPLOT. 3. If steps 1 and 2 do not restore communications, turn off plotter, unhook communications cable, reboot computer, hookup communications cable, turn on plotter, and start ABPLOT.
Plotter does not properly align text on markers.	1. The Plotter is not calibrated correctly.	1. Check that plotter is calibrated as described in the ABPLOT manual.
Marker text quality is poor.	1. Defective marker pen or pen is out of ink. 2. Incorrect inlay placement. 3. Plotting speed is too fast.	1. Replace marker pen. 2. Check inlay installation per table 1.C. 3. Reduce plotting speed. 4. Verify items 1 through 3 have been corrected. Contact Technical Support at (440) 646-3434.
For any other problems, call Technical Support at (440) 646-3434.		

## Plotter Maintenance

The plotter has several sliding surfaces. These surfaces **do not** require any lubrication. However, dust and lint may adversely affect plotter performance. Use a dust cover to keep the plotter as clean as possible.

### Cleaning Plotter

1. If necessary, clean the plotter with a dry, lint-free cloth or a mild cleaning solution. **DO NOT** use abrasives.

---

#### ATTENTION



Do not use aerosol cleaners, household wall cleaners, or anything containing solvents since these may damage certain components.

Never oil the mechanical parts of your plotter.

2. If the pen station storage holders (sealing units) are heavily soiled, they can be replaced. Order service kit 1492-PLOTSERV. This same service kit supplies additional priming surfaces.

### Removing Sealing Unit from Pen Station

1. Open pen station by pressing the “Open/Close” button.
2. Apply the key (enclosed in the 1492-PLOTSERV) to the sealing unit and carefully lift the sealing unit from the holding device.

### Inserting and Adjusting Sealing Unit

1. Insert new sealing unit into pen station.
2. Carefully press the sealing unit up to the limit-stop in the aluminium tube.
3. Using the key, adjust the sealing unit until the key is parallel with the plotter surface. The opening on the side of the sealing unit should be centered.

## Exchanging Priming Plates (for starting plotter pen)

1. Remove the priming plates by pulling them out sideways.
2. Insert new priming plates by sliding them into the guide on the side of the clamping device until the plates fit snugly.

### Pen Maintenance

1492-PLOTPEN 25 and 1492-PLOTPEN 35 must be removed from pen station, capped tightly and stored in the provided pen holder.



## Technical Specifications

**Table 4.B Technical Specifications**

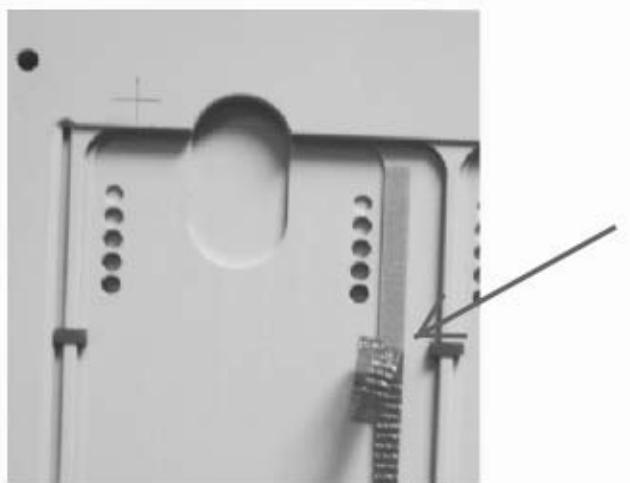
Plotter type	Flatbed plotter
Maximum plotting area	440 mm x 305 mm (17.3 in x 12 in)
Plotting speed	Max. 40 cm/sec. (15.75 in/sec)
Plotter pen	1492-PLOTPEN25, 1492-PLOTPEN35, 1492-PLOTPEN25S
Ports	Parallel (Centronics)/USB level 1.1
Control language	Based on HP-GL 7475A
Buffer	16 MB
Drive	Two-phase step motor
Pen station	Max. four plotter pens with double seal
Addressable resolution	0.01 mm (0.0004 in)
Repeat accuracy	0.05 mm (0.002 in)
Repeat accuracy after pen change	0.05 mm (0.002 in) with optimum pen
Power supply type	Separate power supply with interchangeable adapter plug
Power supply voltage/current	Input voltage: 100-240V AC 50-60 Hz Input current: 0.3 A max. at 220V AC Output voltage: 24V DC Output current: 1.4 A max.
Operating temperature	10°...35°C (50°...95° F) at 35%...75% relative humidity
Storage temperature	-10°...50°C (14°...122°F) at 10%...90% relative humidity
Product compliance	UL-UL1950 CSA-950 VDE En60950
EMI certification	FCC class B FCC part 15 VDE class B EN 55022
Dimensions	660 mm x 440 mm x 125 mm (26 in x 17.3 in x 5 in)
Weight	8 kg (17.6 lb) (approximately)

## Appendix A

### For Plotter Plates with Adhesive Strips, 1492-PLOTPLT, Series A

#### Adhesive Strip Preparation

Before placing any markers on the base plate, carefully remove the five green protective coverings from the adhesive strips on the plate. This reveals an adhesive surface which aids in holding a marker card when the plotter is operating. Remove *only* the green protective covering, not the blue adhesive strip, from the plate.



Item	Catalog No.	Description
Replacement Adhesive Strips	1492-PLOTSTRP	Replacement Adhesive strips for the base plate.

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**Notes:**

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