ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

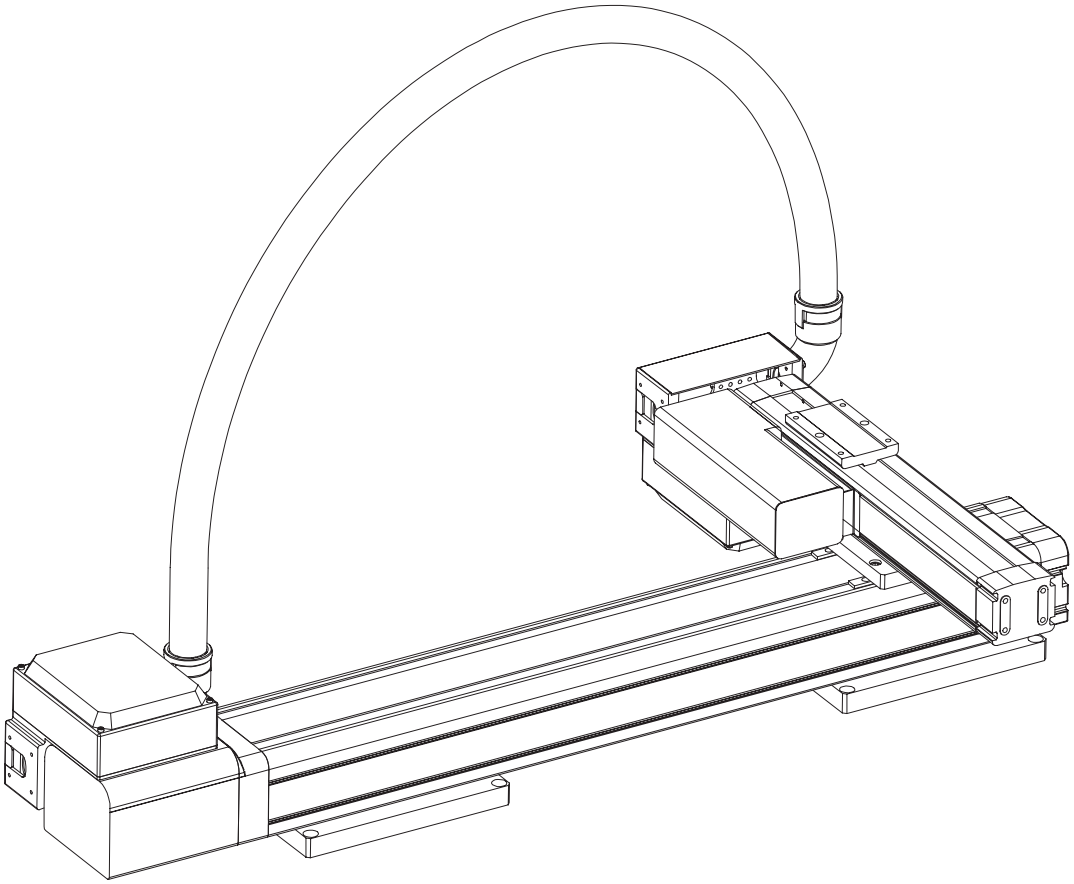
Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Find the *OMRON / Adept Technology 90400-20045* at our website: *Click HERE*

Adept SmartModules Quick Setup Guide

R-D(MS) Configuration



Part Number 00405-20010
Rev. A
March, 2001

adept
technology, inc.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

The information contained herein is the property of Adept Technology, Inc., and shall not be reproduced in whole or in part without prior written approval of Adept Technology, Inc. The information herein is subject to change without notice and should not be construed as a commitment by Adept Technology, Inc. This manual is periodically reviewed and revised.

Adept Technology, Inc., assumes no responsibility for any errors or omissions in this document. Critical evaluation of this manual by the user is welcomed. Your comments assist us in preparation of future documentation.

Copyright ©2001 by Adept Technology, Inc. All rights reserved.

The Adept logo is a registered trademark of Adept Technology, Inc.

The SILMA logo is a registered trademark of the SILMA Division of Adept Technology, Inc.

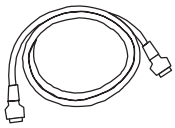
AdeptOne-XL, AdeptThree-XL, HyperDrive, Adept 550, Adept 550 CleanRoom, Adept 1850, Adept 1850XP, Adept Cobra 600, Adept Cobra 800, Adept Flexfeeder 250, Adept MV, Adept MV4, AdeptAtlas, AdeptVicron, SMIF-Z / ZX, AdeptVision, AdeptVision VXL, AdeptVision AVI, ObjectFinder, ObjectFinder 2000, AIM, VisionWare, AdeptMotion, MotionWare, PalletWare, PathWare, AIM Command Server, FlexFeedWare, AdeptGEM, AdeptNet, AdeptFTP, AdeptNFS, AdeptTCP / IP, AdeptForce, AdeptModules, Adept SmartModules, Adept SmartAmp, AdeptWindows, AdeptWindows PC, AdeptWindows DDE, AdeptWindows Offline Editor, Adept Digital Workcell, and V^+ are trademarks of Adept Technology, Inc.

Any trademarks from other companies used in this publication are the property of those respective companies.

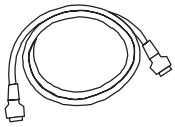
Printed in the United States of America

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

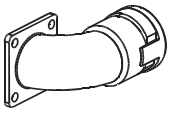
Parts List



Cable Kit, Amp to Amp
Part No. 90410-100xx Qty. **1**



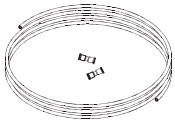
Cable Kit, Controller
Part No. 90410-200xx Qty. **1**



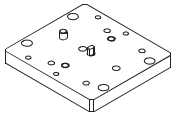
Cable Tube Fitting, Elbow
Part No. 40410-40090 Qty. **2**



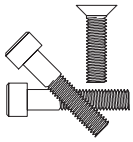
Cable Tube, Flyover
Part No. 40410-320xx Qty. **1**



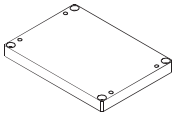
Cleanroom Air Kit
Part No. 90410-35000 Qty. **1**
Included with cleanroom modules only.



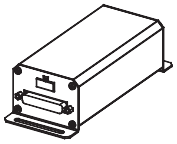
Combining Bracket, R-DMS
Part No. 90400-05006 Qty. **1**



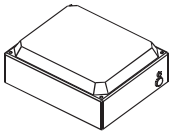
Hardware Kit
Part No. 90405-00200 Qty. **1**



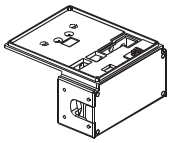
Mounting Plate, RM Module
Part No. 90400-01200 Qty. **2***



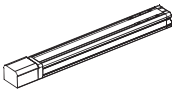
Remote I/O (RIO) Option Kit
Part No. 90410-20050 Qty. ******
Optional kit.



SmartAmp
Part No. 30410-10000 Qty. **2**



SmartAmp Mounting Bracket
Part No. 30410-20000 Qty. **2**



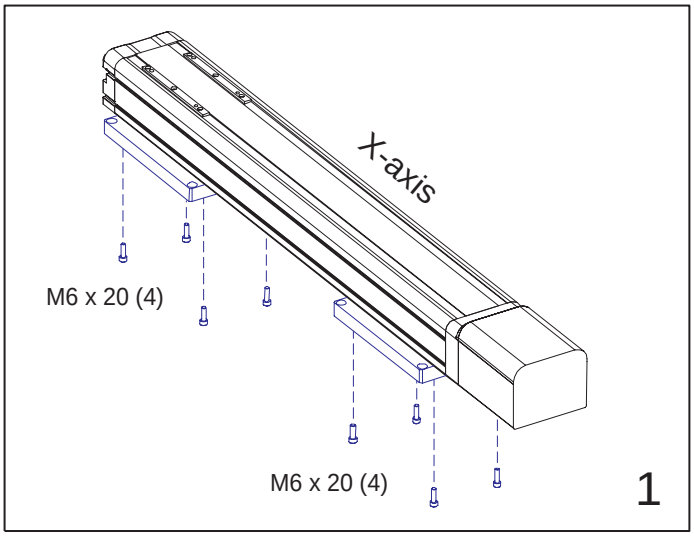
Module
Part No. 9040x-xxxxx Qty. **2**

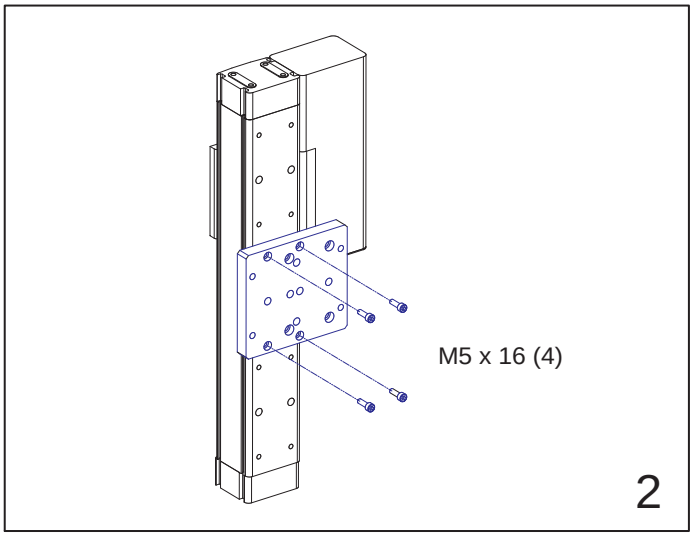
---

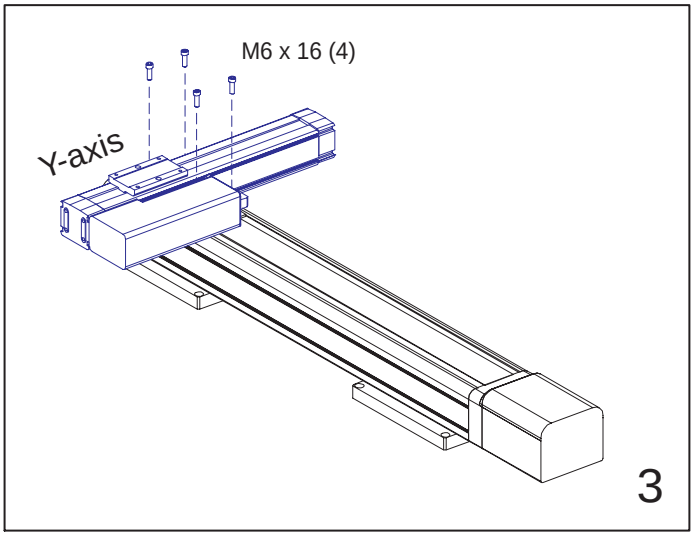
* Quantity may vary according to module lengths.
** Quantity may vary according to order.
Note: Pictures are not to scale. Your package may contain extra hardware.

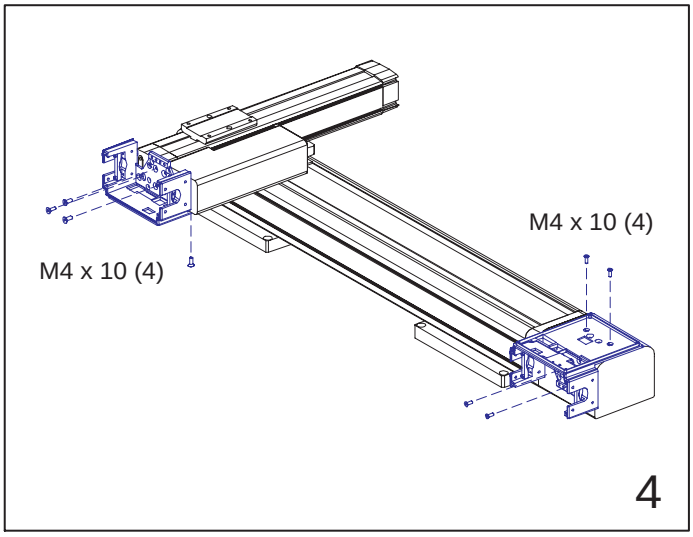
Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

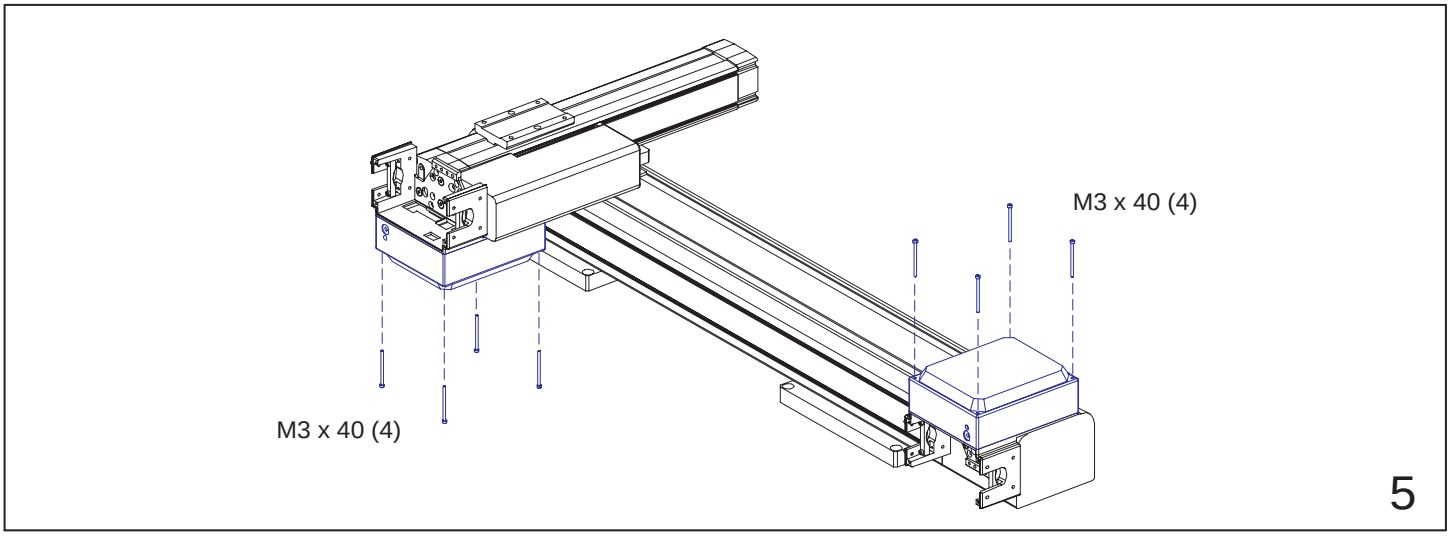
Assembly


X-axis
M6 x 20 (4)
M6 x 20 (4)
1

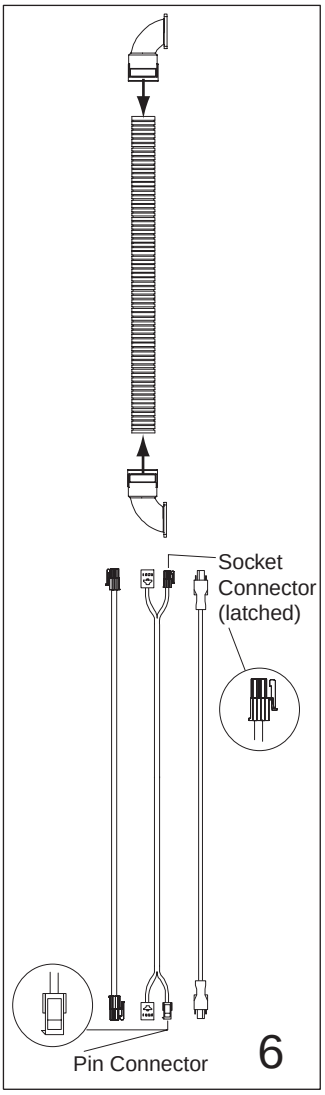

M5 x 16 (4)
2

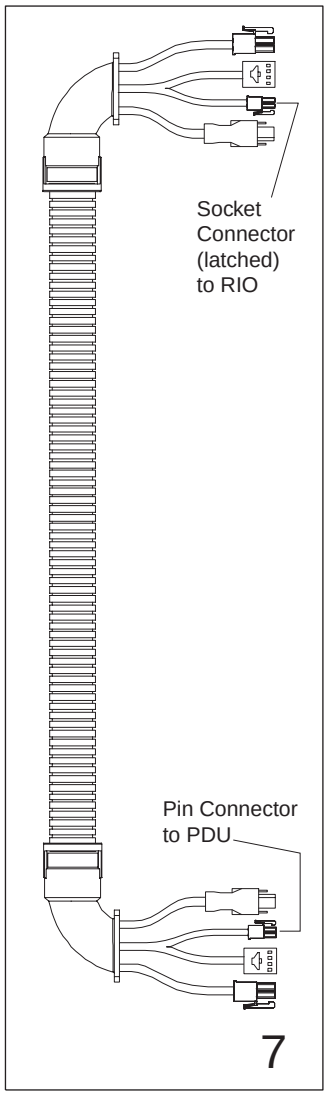

M6 x 16 (4)
Y-axis
3

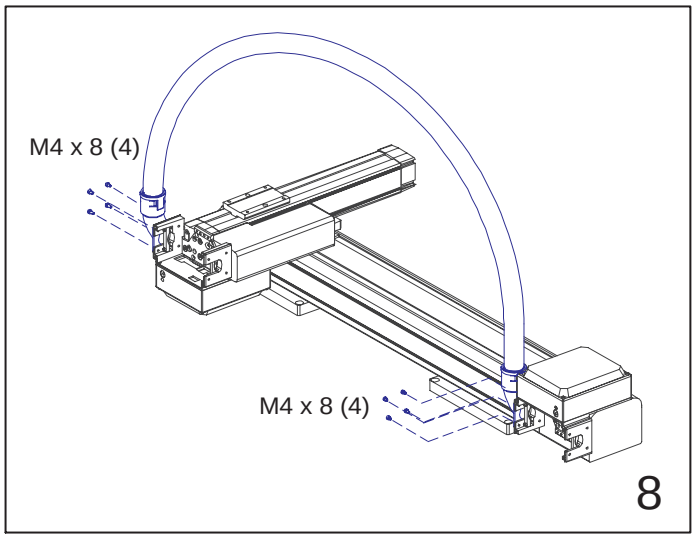

M4 x 10 (4)
M4 x 10 (4)
4

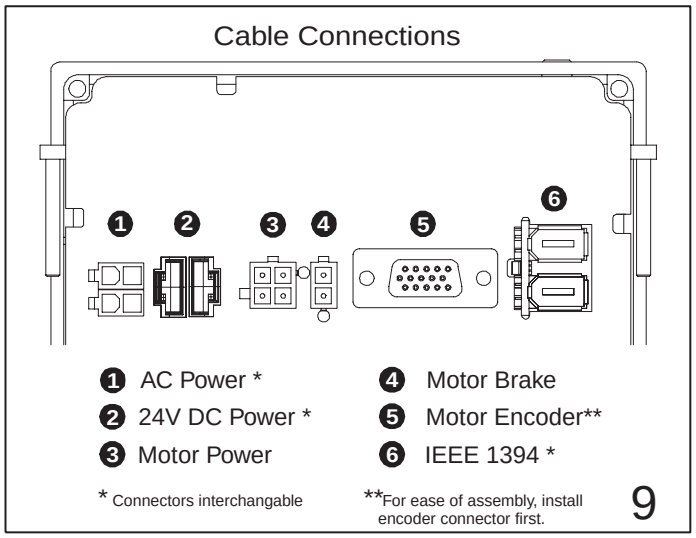

M3 x 40 (4)
M3 x 40 (4)
5

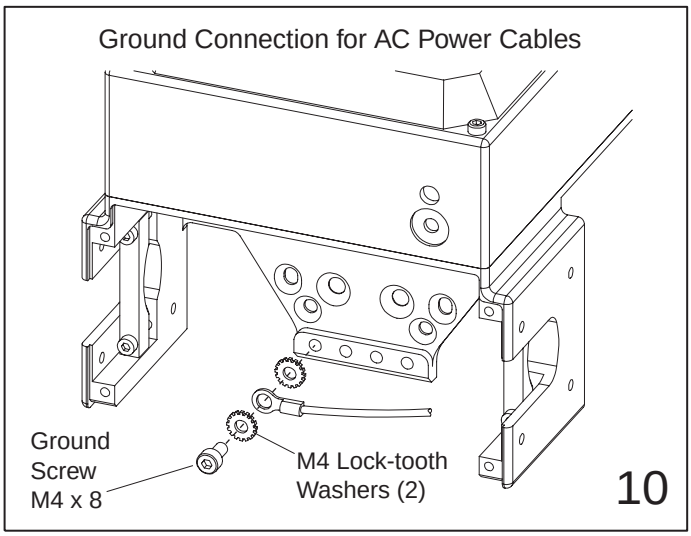
Assembly

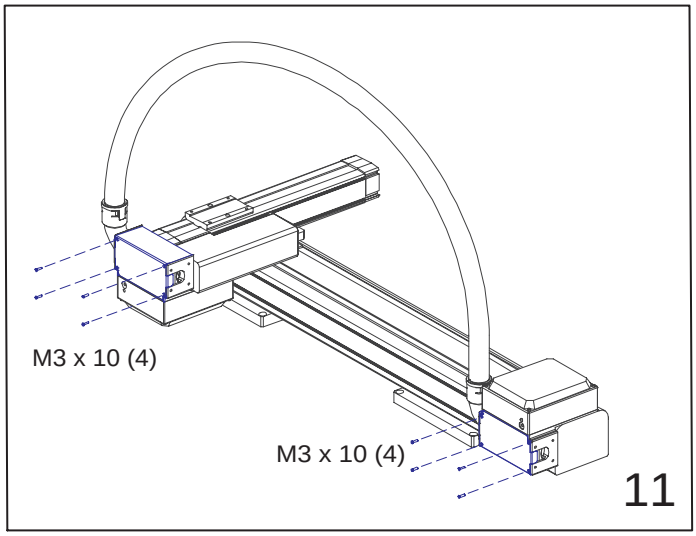

Socket
Connector
(latched)
Pin Connector
6


Socket
Connector
(latched)
to RIO
Pin Connector
to PDU
7

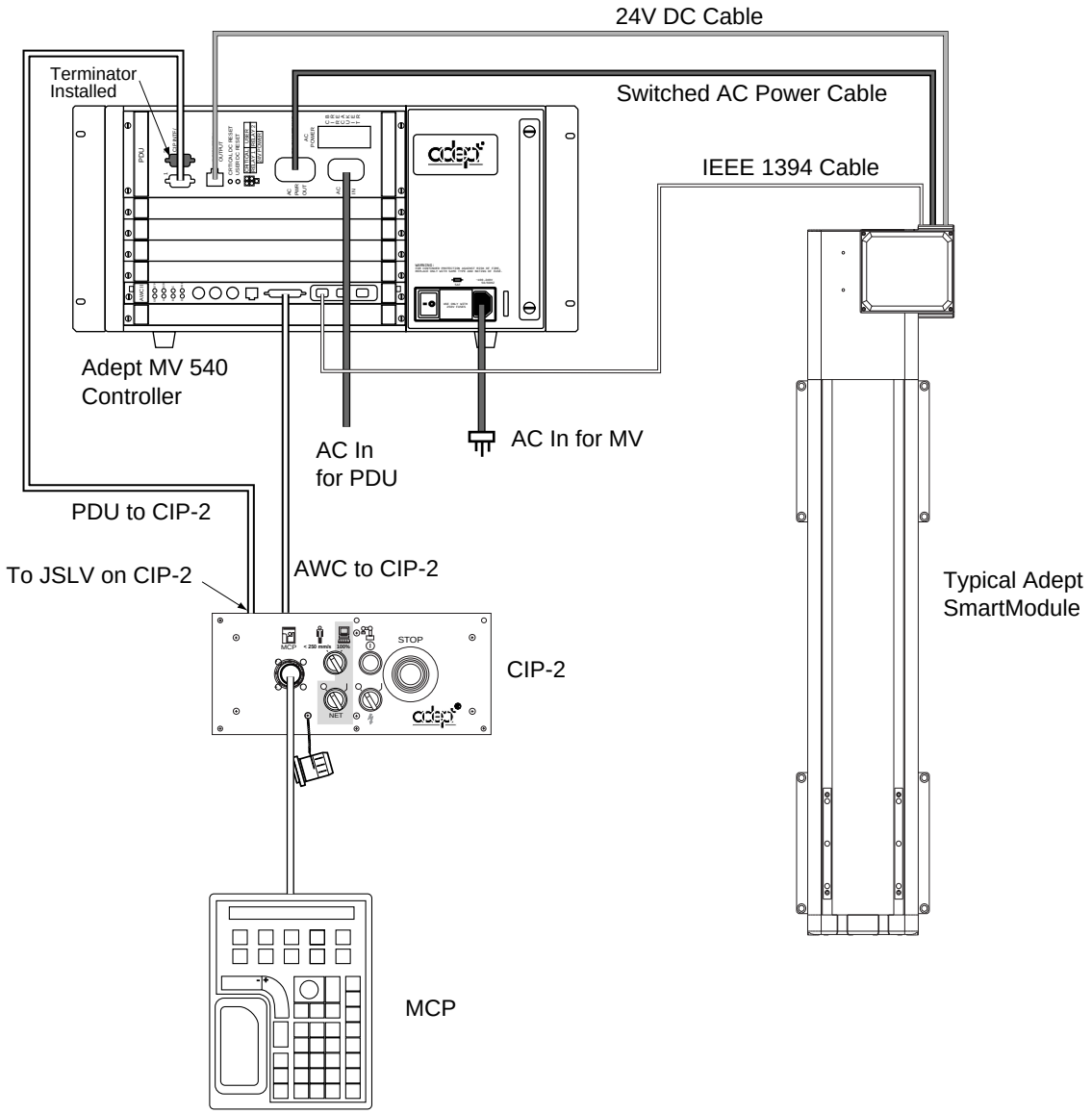

M4 x 8 (4)
M4 x 8 (4)
8


Cable Connections
1
2
3
4
5
6
1 AC Power *
2 24V DC Power *
3 Motor Power
4 Motor Brake
5 Motor Encoder**
6 IEEE 1394 *
* Connectors interchangable
**For ease of assembly, install encoder connector first.
9


Ground Connection for AC Power Cables
Ground
Screw
M4 x 8
M4 Lock-tooth
Washers (2)
10


M3 x 10 (4)
M3 x 10 (4)
11

System Cable Installation



NOTE: Connect AC In to PDU before turning on power switch on MV Controller.

WARNING: Do not use an Adept SmartModule system with an Adept Compact Controller containing an MV-4 Insert. This will cause overheating and damage to the equipment.

NOTE: Adept SmartModule systems must be used with the **CIP-2**. The system will not work with earlier CIP units.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

AC Power Requirements

AC to MV Controller: 100 to 240VAC, single phase

AC to PDU: 100 to 240VAC, single phase

Adept recommends that the AC power to the MV Controller and the PDU come from the same source and share a common frame ground.

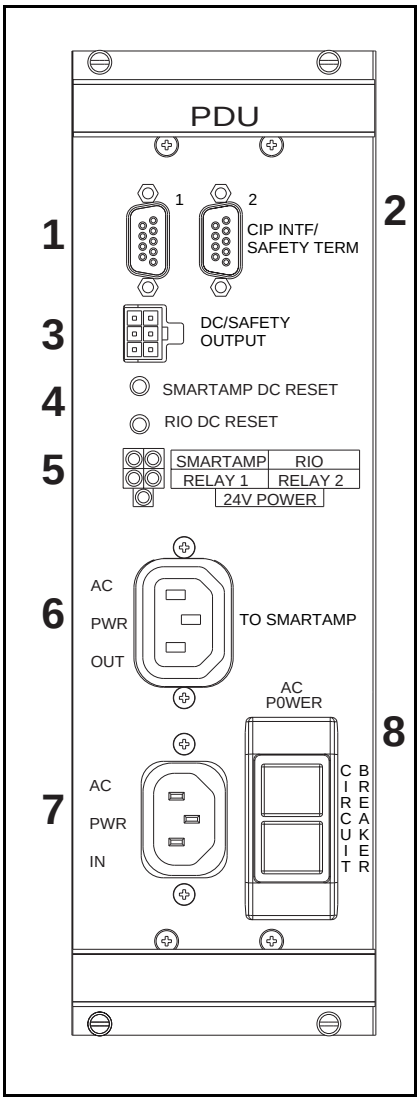


WARNING: Disconnect the AC In cable on the PDU before removing any cover from a SmartAmp or attempting any servicing on a SmartModule system. Switching off the circuit breaker on the PDU does NOT turn off all electrical power to the SmartAmps.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Power Distribution Unit (PDU)

This is a description of the connectors and indicators on the PDU.



1. **CIP INTF** - connector for the cable between the PDU and the CIP-2. At CIP-2, the cable plugs into the JSLV connector.

2. **Safety Term** - connector for safety loopback terminator. The terminator plug must be installed for system to operate.

3. **DC/Safety Output** - connector for 24V DC cable to SmartAmps. This cable provides:
   24V DC to SmartAmps
   24V DC to RIO
   Auto/Manual signals for Manual Mode operation

4. **SmartAmp DC Reset** button - for resetting internal circuit breaker on 24V DC supply to SmartAmps

   RIO DC Reset button - for resetting internal circuit breaker on 24V DC supply to RIO

   CAUTION: Do not push reset buttons while system is operating because it will cause 24V power to cycle and require restarting the system.

5. Status indicator LEDs:
   SmartAmp - On indicates 24V DC to SmartAmps is operating
   RIO - On indicates 24V DC to RIO is operating
   Relay 1 - On indicates Relay 1 is on
   Relay 2 - On indicates Relay 2 is on - both relays must be on to enable Switched AC power to SmartAmps
   24V Power - On indicates 24V DC power supply in PDU is working.

6. **AC Power Out** - connector for Switched AC Power Cable to supply AC power to SmartAmps

7. **AC Power In** - connector for incoming AC power to PDU

8. **AC Power Circuit Breaker** - 6 Amp circuit breaker for switched AC power going to SmartAmps. The green button must be pressed in to allow switched AC power to the SmartAmps.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Software Configuration

This section describes the process to configure the software for an Adept SmartModules system. The two main steps are:

- load and run CONFIG_C.V2
- load and run DC_SETUP.V2

Load and Run CONFIG_C.V2

This step adds the correct device module to the system.

1. Type the following at the prompt.

   ```
   load d:\util\config_c

   execute 1 a.config_c
   ```

2. From the main menu select Robots and Device Modules.
3. Select Append device modules.
4. Type LM to add LM - [32] Linear Module Robot Module.
5. Type yes to confirm.
6. Type yes to select robot #1.
7. Type 32 to select Linear Module Robot Module.
8. Type no to robot #2.
9. Press Enter to continue.
10. Exit CONFIG_C and reboot the controller.

Load and Run DC_SETUP.V2

This step goes through the SmartAmp initiation. You identify and configure each axis in your system, then the system calibration is performed.

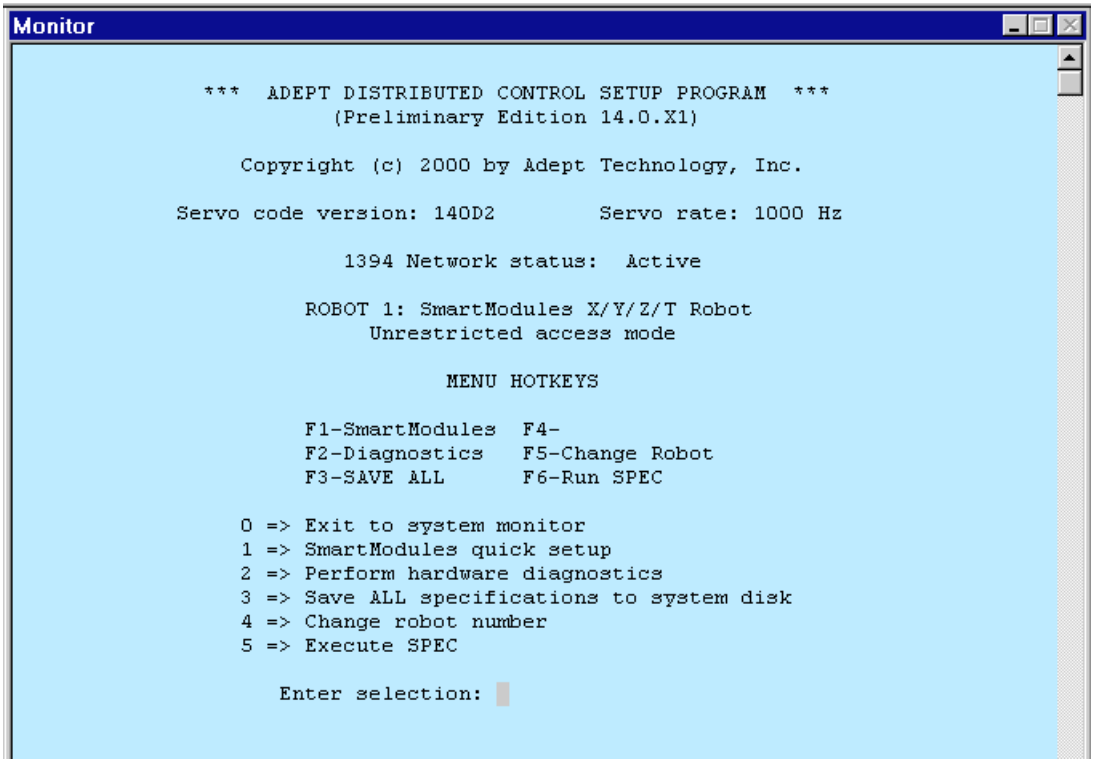
1. Type the following at the prompt.

   ```
   load d:\util\dc_setup.v2

   execute 1 a.dc_setup
   ```

2. The first screen in the Setup program looks similar to the following screen. Select SmartModules Quick Setup.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



3. Follow the instructions on the screen as you proceed through the program.
4. Remember to save the new data to the system boot disk when prompted.
5. Exit DC_SETUP by selecting “0=> Exit to system monitor.”
6. You are now ready to start the system.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP