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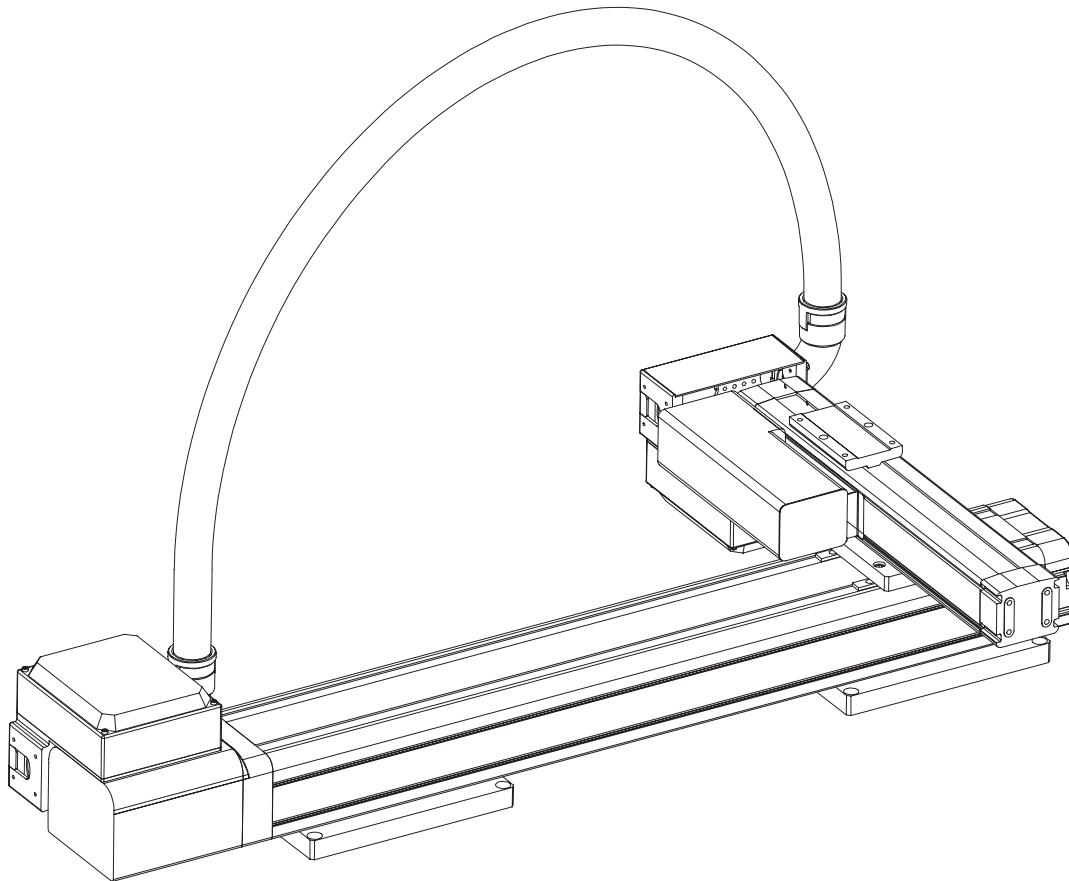
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Adept SmartModules Quick Setup Guide

R-D(MS) Configuration



Part Number 00405-20010
Rev. A
March, 2001



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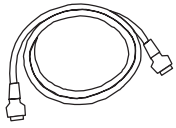
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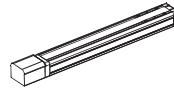
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R-D(MS) Configuration

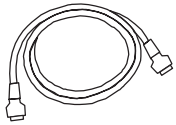
Parts List



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

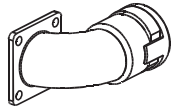


Module
Part No. 9040x-xxxxx Qty. 2



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

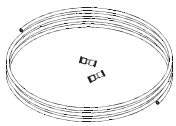
* Quantity may vary according to module lengths.
** Quantity may vary according to order.
Note: Pictures are not to scale. Your package may contain extra hardware.



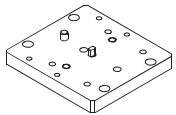
Cable Tube Fitting, Elbow
Part No. 40410-40090 Qty. 2



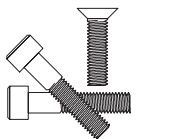
Cable Tube, Flyover
Part No. 40410-320xx Qty. 1



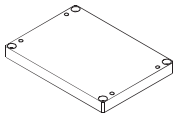
Cleanroom Air Kit
Part No. 90410-35000 Qty. 1
Included with cleanroom modules only.



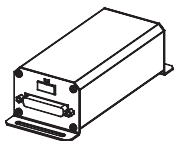
Combining Bracket, R-DMS
Part No. 90400-05006 Qty. 1



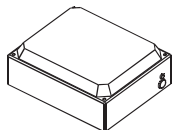
Hardware Kit
Part No. 90405-00200 Qty. 1



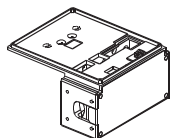
Mounting Plate, RM Module
Part No. 90400-01200 Qty. 2*



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



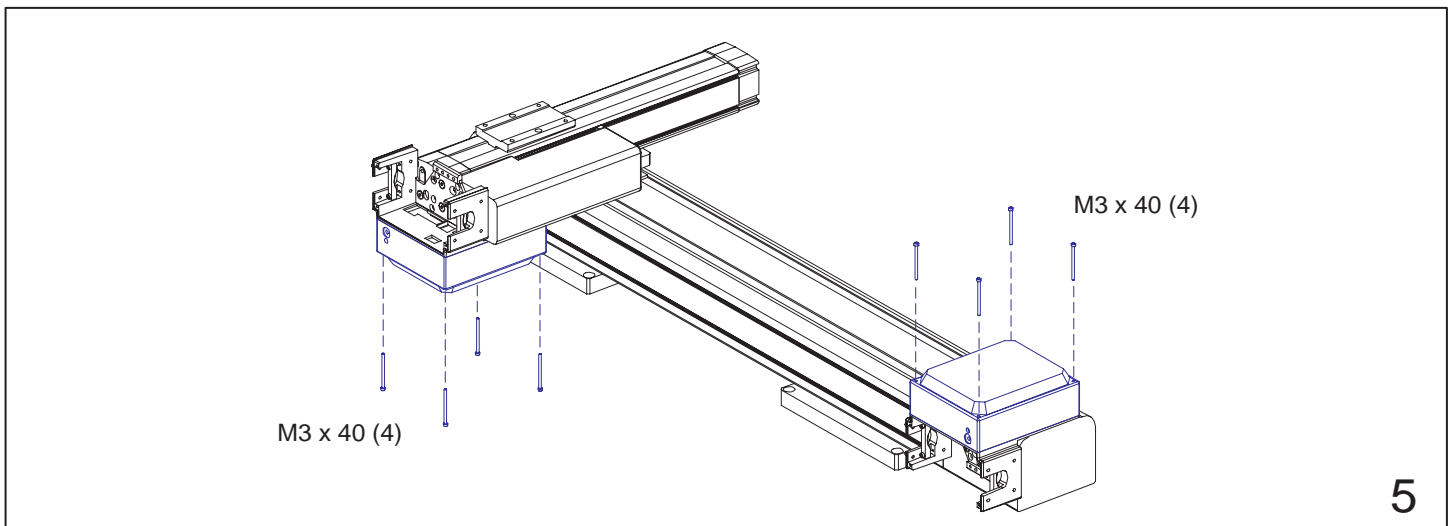
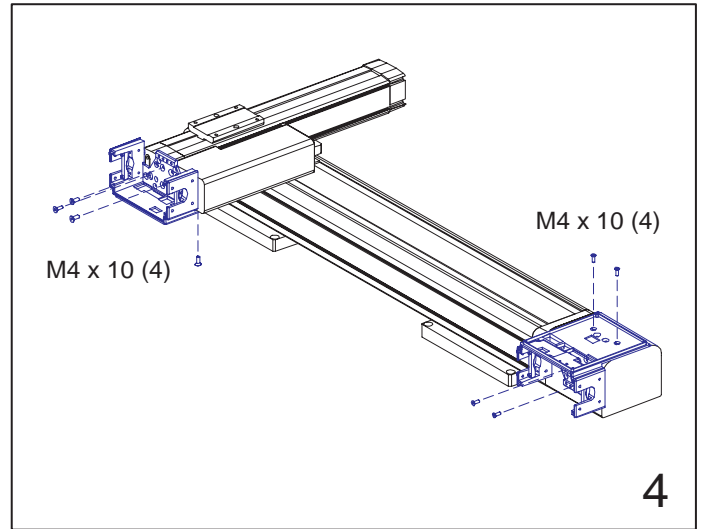
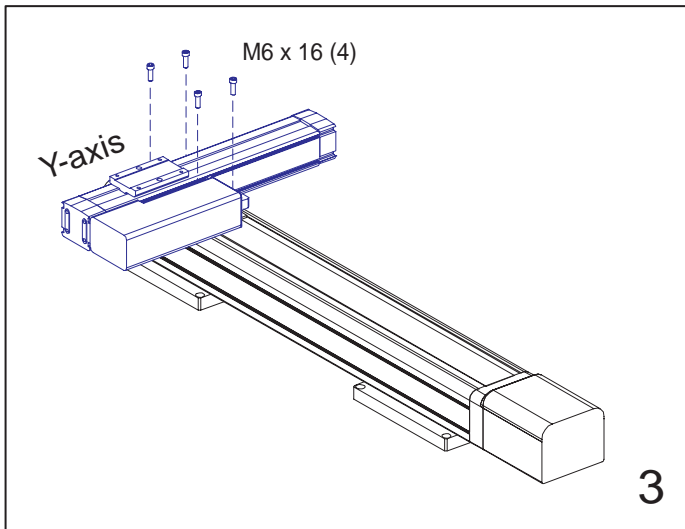
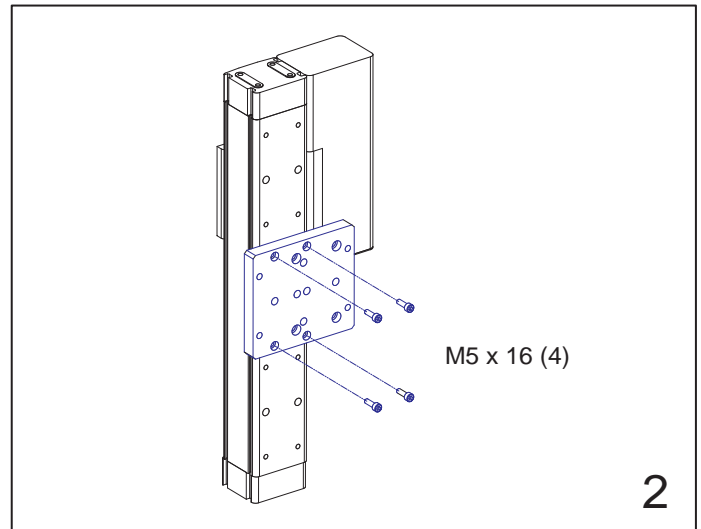
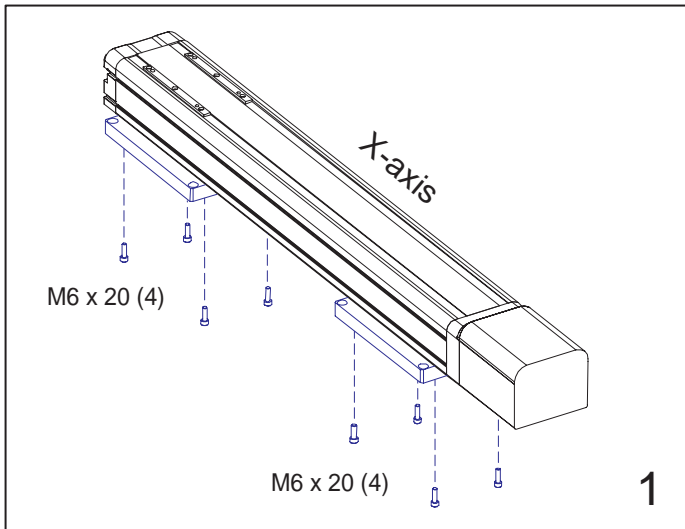
SmartAmp
Part No. 30410-10000 Qty. 2



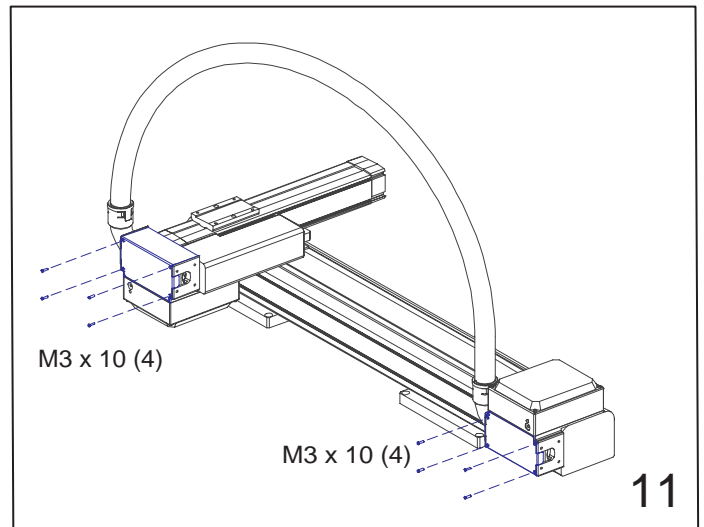
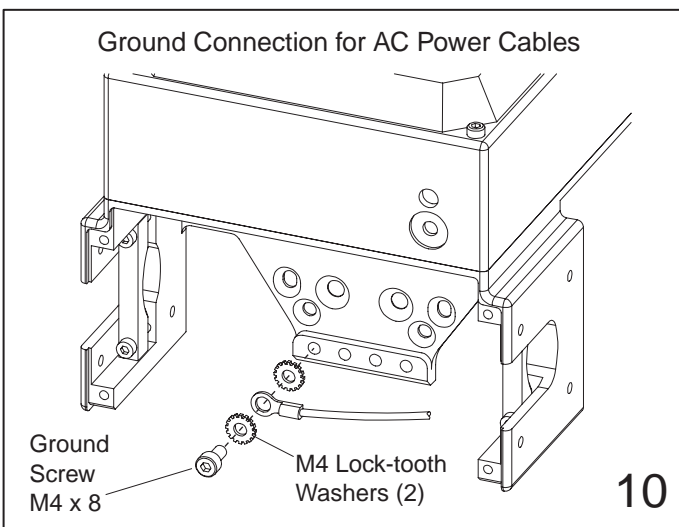
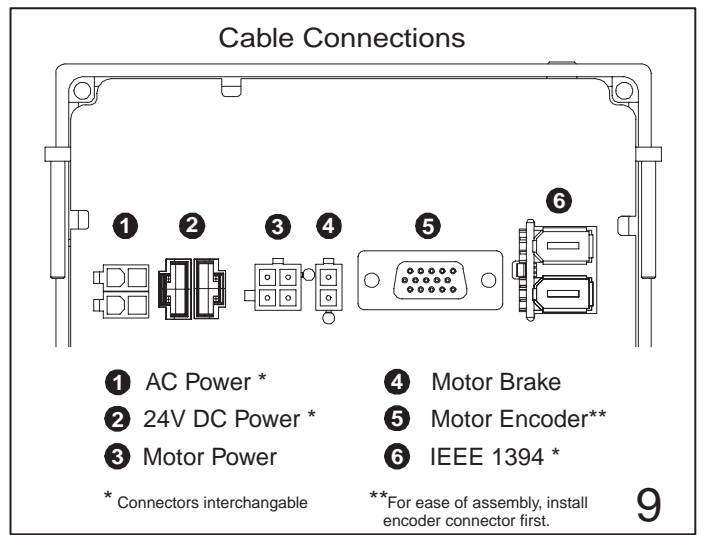
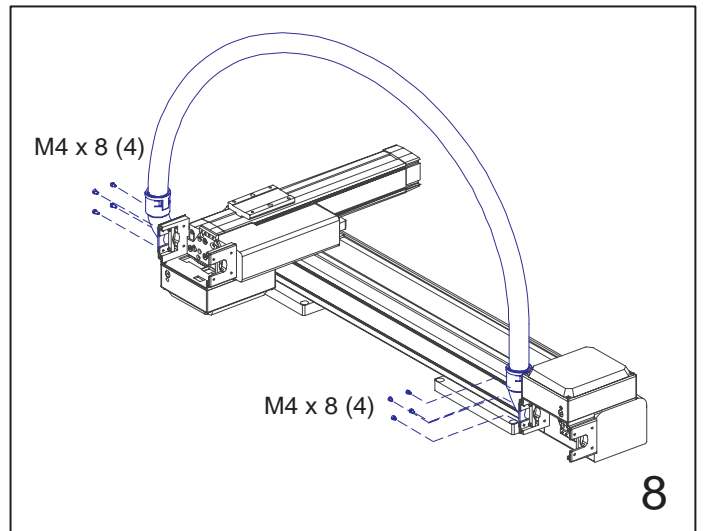
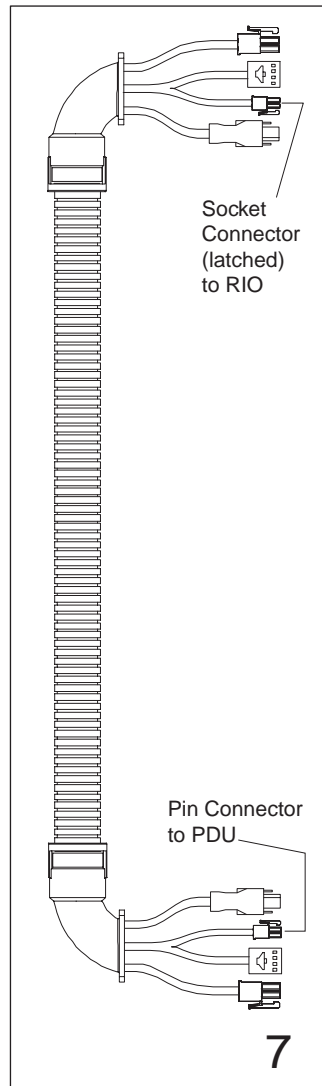
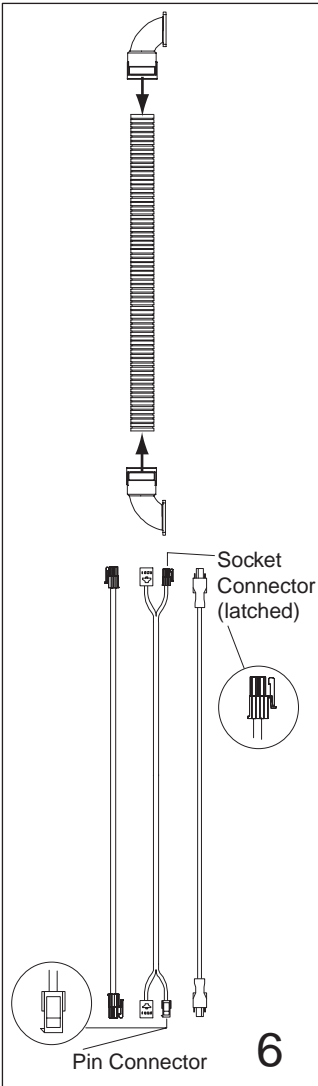
SmartAmp Mounting Bracket
Part No. 30410-20000 Qty. 2

R-D(MS) Configuration

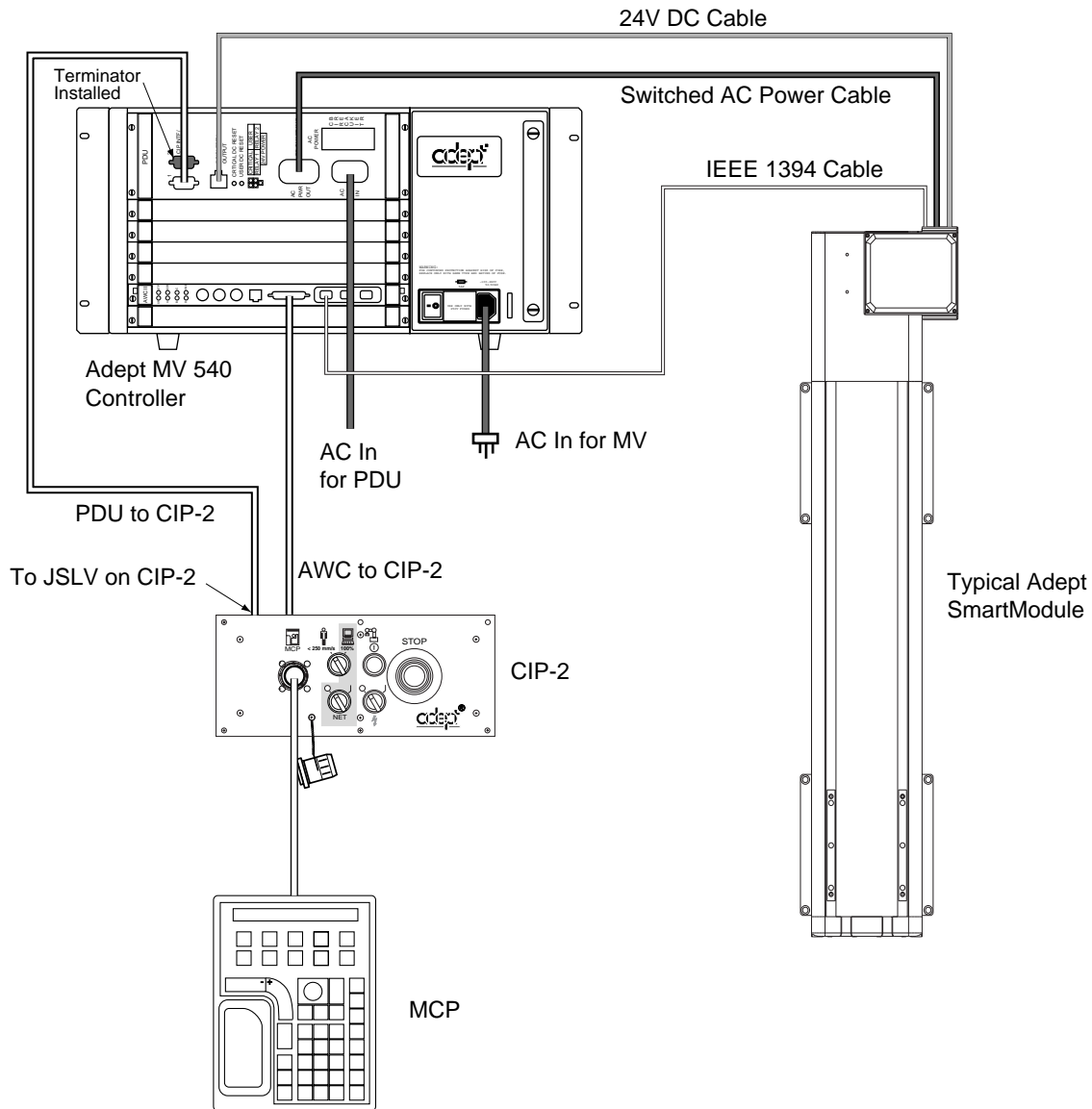
Assembly



Assembly



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.

AC Power Requirements

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

AC to PDU: 100 to 240VAC, single phase

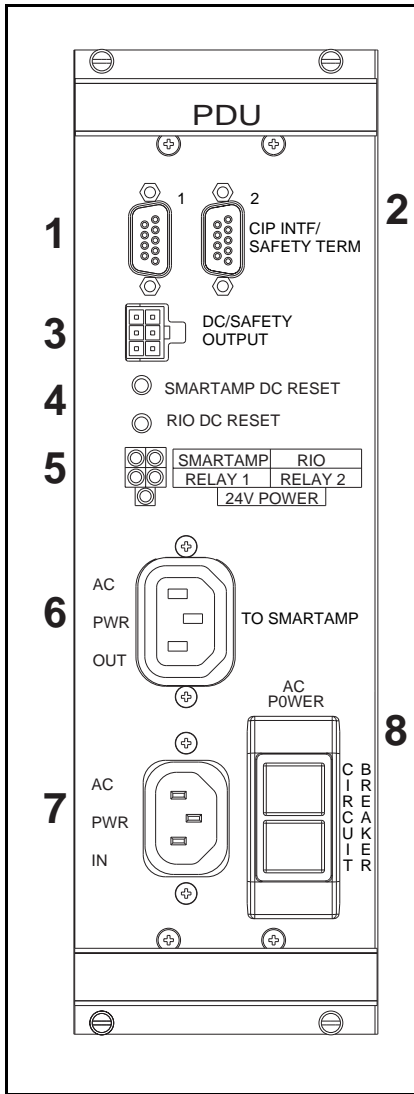
Adept recommends that the AC power to the MV Controller and the PDU come from the same source and share a common frame ground.



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.

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.

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.

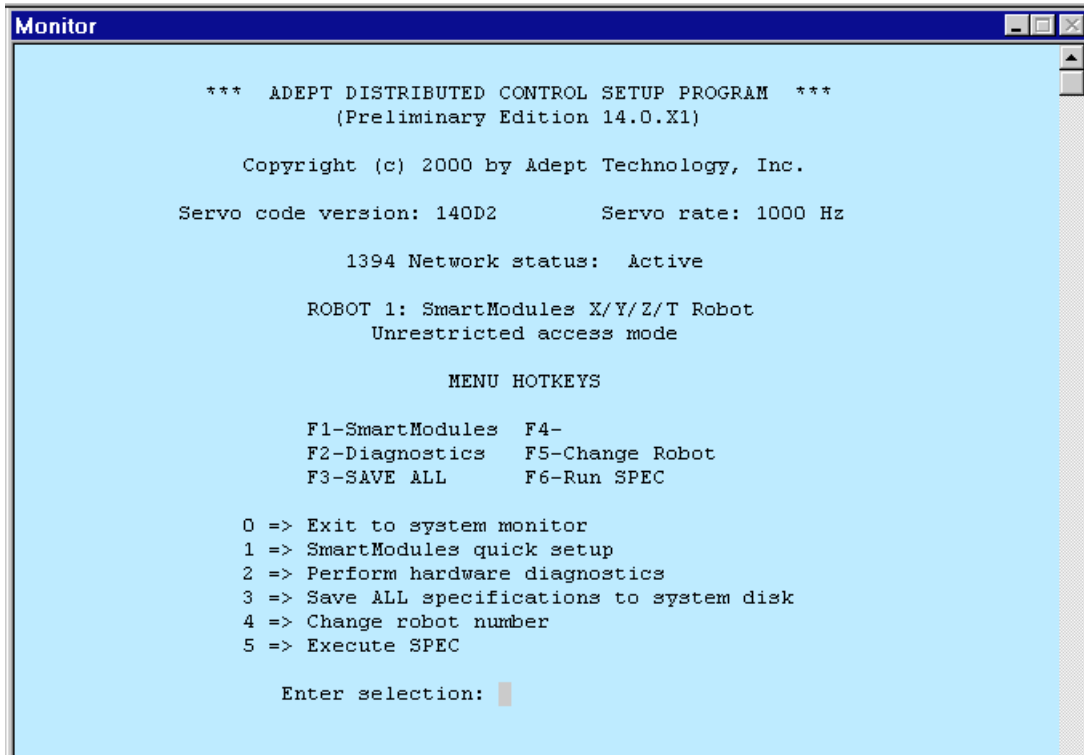
1. Type the following at the prompt.

```
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.

R-D(MS) Configuration



```
Monitor
*** ADEPT DISTRIBUTED CONTROL SETUP PROGRAM ***
(Preliminary Edition 14.0.X1)

Copyright (c) 2000 by Adept Technology, Inc.

Servo code version: 140D2      Servo rate: 1000 Hz

1394 Network status: Active

ROBOT 1: SmartModules X/Y/Z/T Robot
Unrestricted access mode

MENU HOTKEYS

F1-SmartModules  F4-
F2-Diagnostics  F5-Change Robot
F3-SAVE ALL      F6-Run SPEC

0 => Exit to system monitor
1 => SmartModules quick setup
2 => Perform hardware diagnostics
3 => Save ALL specifications to system disk
4 => Change robot number
5 => Execute SPEC

Enter selection: █
```

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.



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