

Introduction

Upgrading your Axis Module

This kit contains the information and procedures necessary to upgrade your 1394-AM50, 1394-AM75, DAM-100 or DAM-150 axis module. It is intended for those modules with date codes before 0897 that do not have a 74102-247-51 upgrade sticker. Modules with date codes after 0897 or a 74102-247-51 upgrade sticker do not require this kit. This kit includes:

Item:	Quantity:
Ground wire	1
ESD wrist strap	1
M4 x 12 mm flat head screw	2
Replacement gasket	1
Upgrade label	1
Instruction sheet	1

Removing the Axis Module from the System

To remove the axis module:

1. Remove 24V control power and 380/460V AC input power from the system.



ATTENTION: This system may have multiple sources of power. More than one disconnect switch may be required to de-energize the system. To avoid shock hazard or personal injury, ensure that all power has been removed before proceeding.

2. Verify that the DC bus is completely discharged using a voltmeter and the test points TP1 and TP2 located in the upper right corner of the system module behind the warning plate.



ATTENTION: This product contains stored energy devices. To avoid hazard of electrical shock, verify that all voltage on the capacitors has been discharged before attempting to service, repair, or remove this unit. You should only attempt the procedures in this document if you are qualified to do so and familiar with solid-state control equipment and the safety procedures in publication NFPA 70E.

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3. Remove connectors (TB1 and TB2) from the bottom of the axis module.
4. Label and remove the motor leads and ground wiring from the terminal block on the front of the axis module.
5. Disconnect the slide-and-lock mechanism on the module you plan to remove and all modules to the right of it.
6. Remove the bottom fastener on the axis module.
7. Loosen the top fastener on the axis module.
8. Lift the axis module and pull it off the mounting panel.
9. If you are removing the right-most axis module, remove the Terminator from the right side of the axis module.
10. Move the axis module to an ESD approved work station. For more information, refer to an Electrostatic Discharge Protection Handbook.
- 11.

If the axis module was mounted with the heat sink:	Do this:
Through the back of the enclosure	<ol style="list-style-type: none"> 1. Scrape away the gasket on the back of the axis module hanger. 2. Go to <i>Removing the Axis Module Cover</i>.
Inside the enclosure	Go to <i>Removing the Axis Module Cover</i> .

Removing the Axis Module Cover

This kit is intended for those modules with date codes before 0897 that do not have a 74102-247-51 upgrade sticker. Verify the date code on the side of your axis module before you remove the cover. Modules with date codes after 0897 or a 74102-247-51 upgrade sticker do not require this kit.

To remove the axis module cover:



ATTENTION: This drive contains ESD (Electrostatic Discharge) sensitive parts and assemblies. You are required to follow static control precautions when you install, test, service, or repair this assembly. If you do not follow ESD control procedures, components can be damaged.

1. Set the axis module on its side with the label down.
2. Attach the enclosed ESD wrist strap to an adequate ground

Date Code

**AC SERVO CONTROLLER
AXIS MODULE, 15KW**

CAT NO. SERIES

INSTRUCTION MANUAL

VOLTS DC INPUT PH AMPS

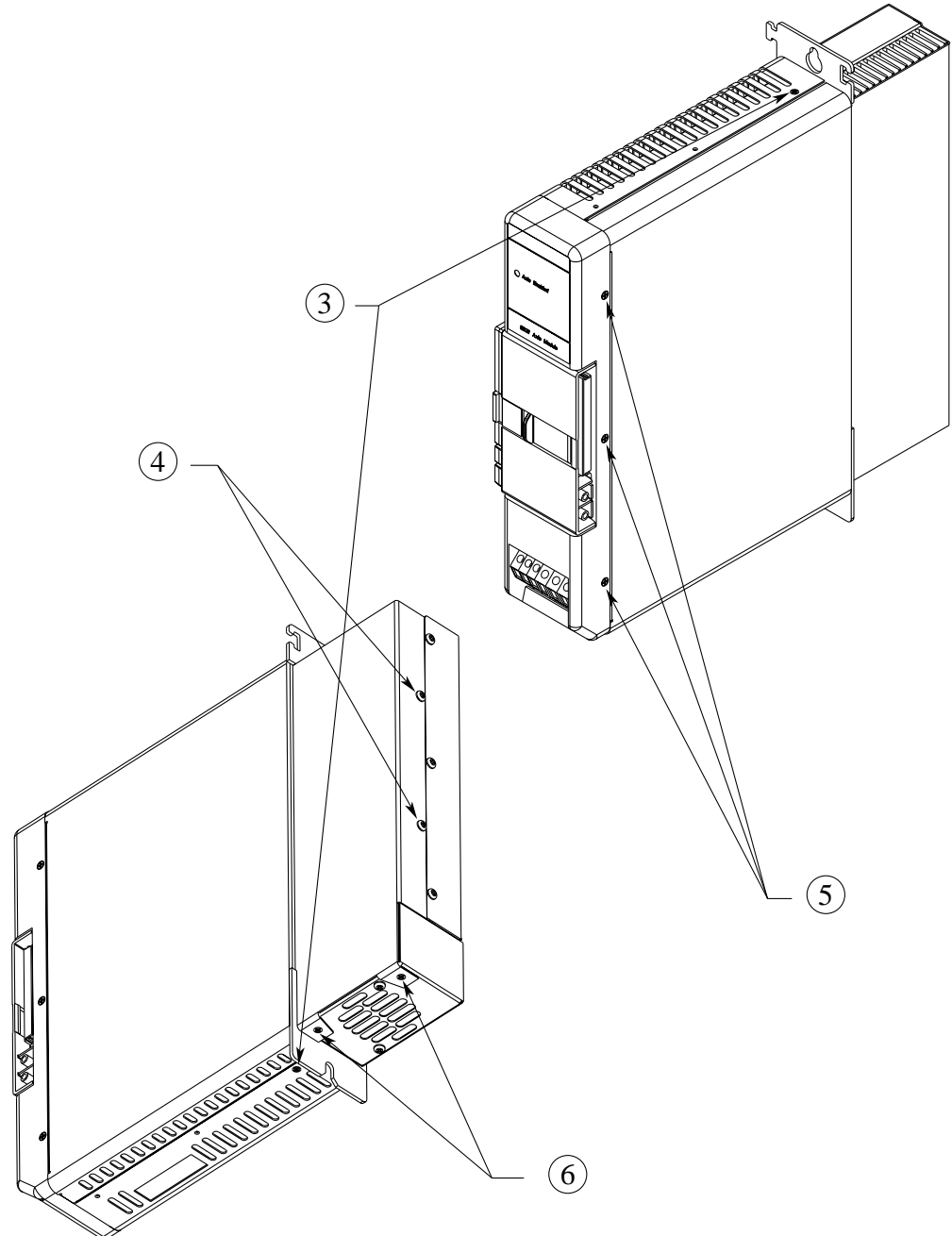
VOLTS AC OUTPUT CONT AMPS KW

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MADE IN U.S.A.

terminal and wear it at all times during this procedure.

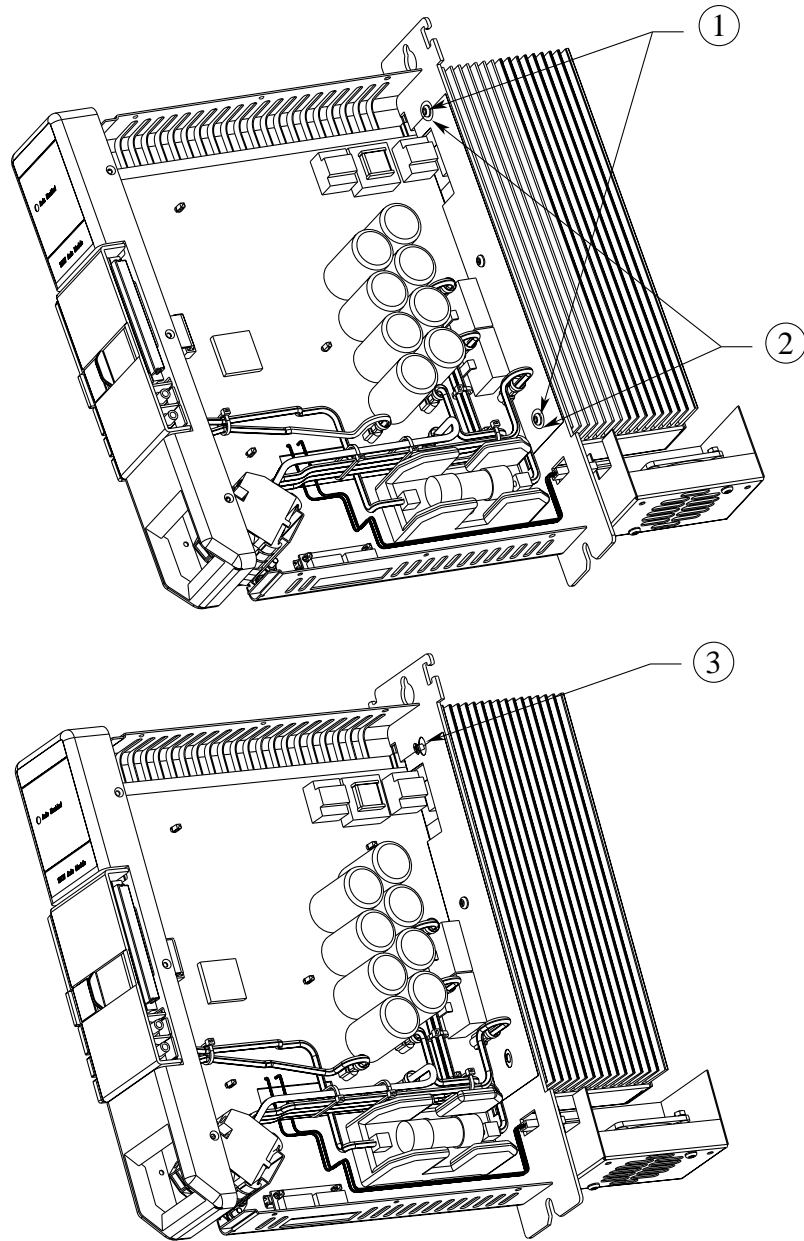


3. Remove these two M3 x 6 mm flat head screws.
4. Remove these two M4 x 10 mm pan head screws.
5. Remove these six M3 x 6 mm flat head screws (three on each side). Do not disconnect the face assembly from the board.
6. Remove these two M3 x 6 mm flat head screws.

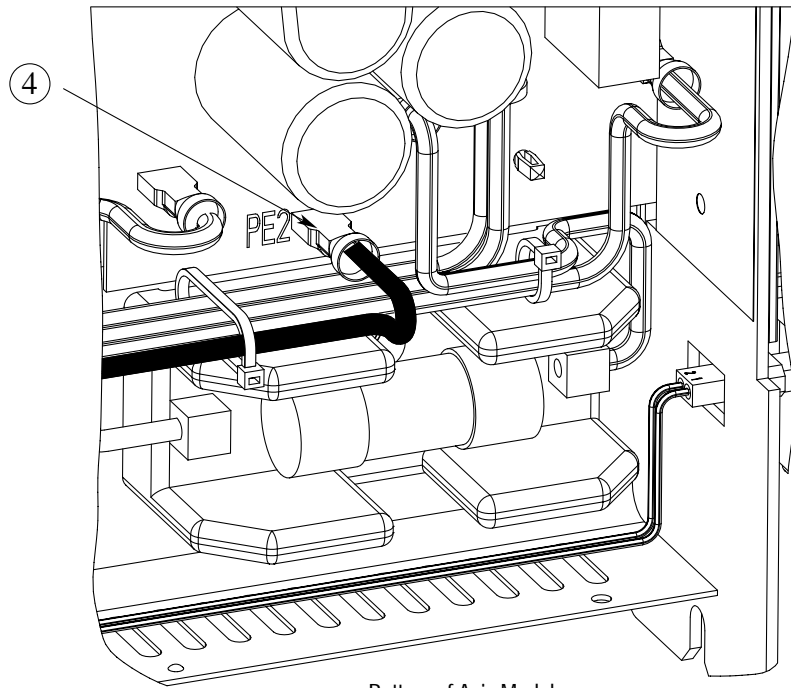
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7. Once all of the screws have been removed, take off the cover of the module.
8. Go to *Installing the Ground Wire*.

Installing the Ground Wire

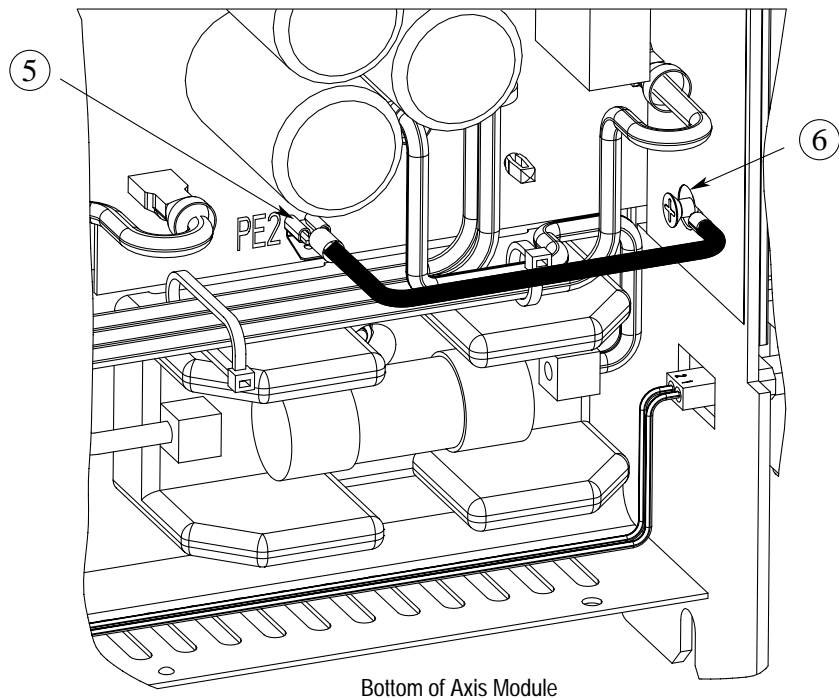


1. Remove these two M4 x 10 mm pan head screws.
2. Cut and remove a 12 mm (0.5 in) diameter piece of the Mylar sheet around each screw hole.
3. Install one of the M4 x 12 mm flat head screws included with the kit.



Bottom of Axis Module

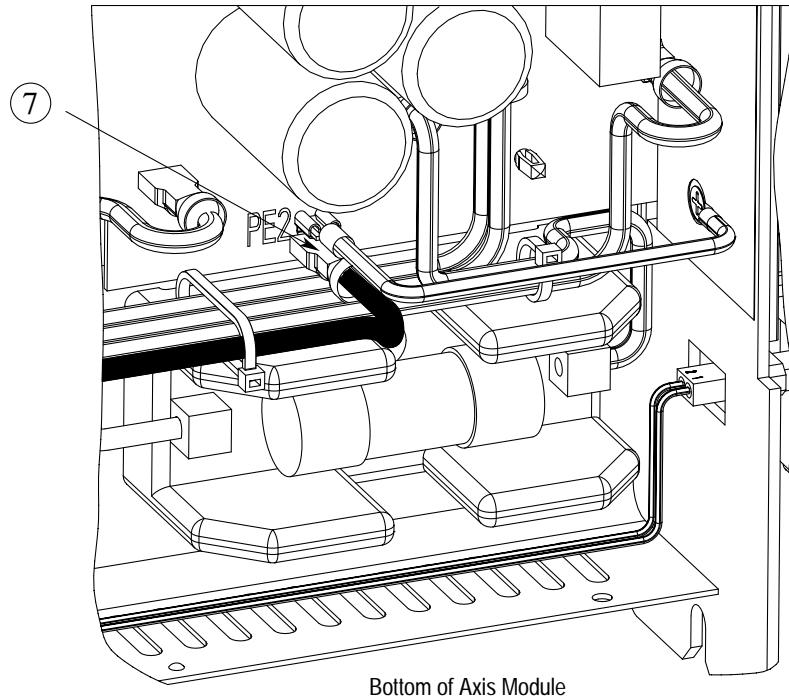
4. Unplug the green wire labeled PE2.



Bottom of Axis Module

5. Plug the ground wire (included in the kit) into terminal PE2. Make sure the rounded side of the connector faces away from the bottom of the axis module.
6. Fasten this end of the ground wire to the hanger using the remaining M4 x 12mm flat head screw included with the kit.

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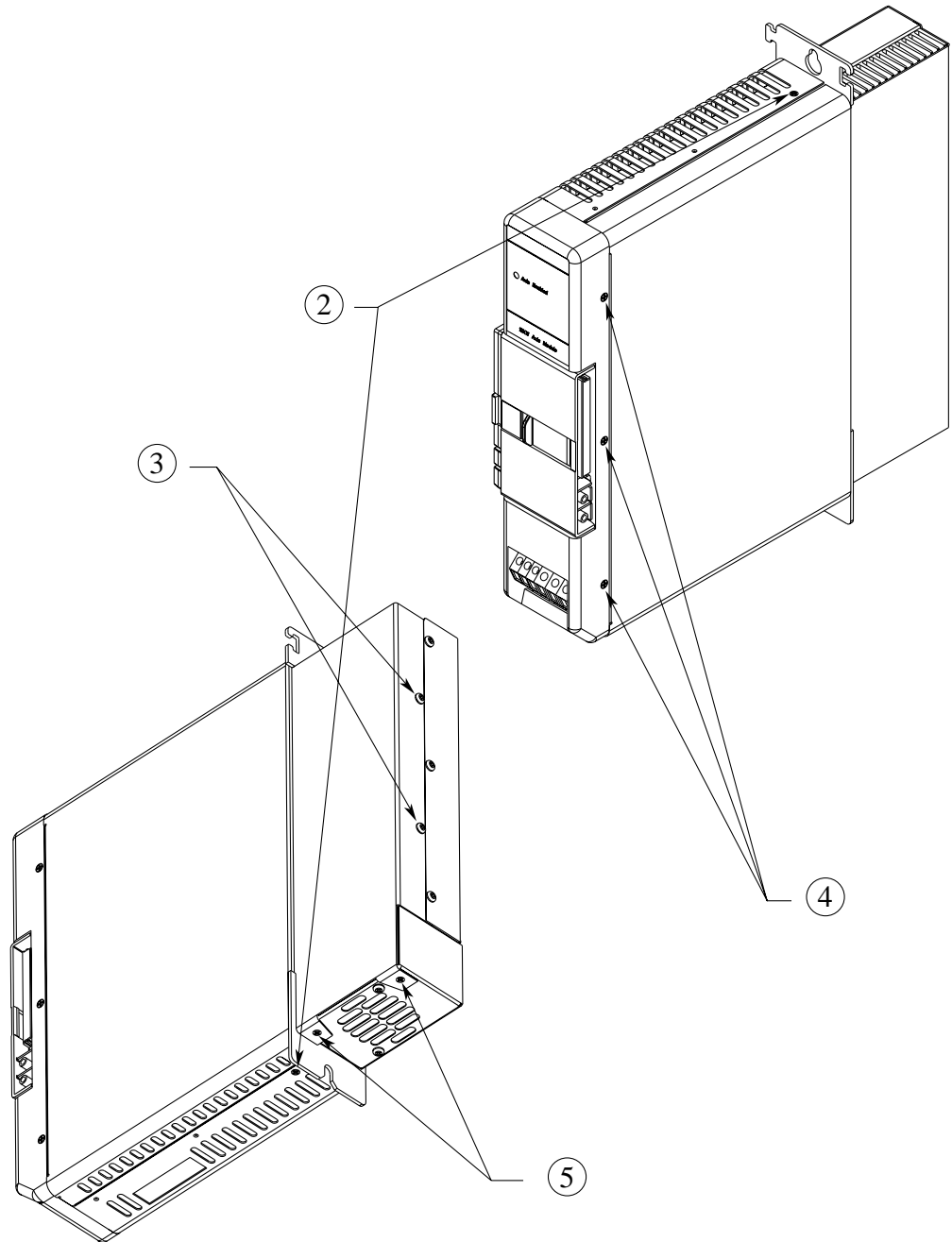


7. Plug the green wire labeled PE2 into the terminal on the grounding wire. Make sure the flat side of the connector faces away from the bottom of the axis module.
8. Go to *Re-assembling the Axis Module Cover*.

Re-assembling the Axis Module Cover

To re-assemble the axis module cover:

1. Place the cover on the the axis module.



2. Fasten these two M3 x 6 mm flat head screws.
3. Fasten these two M4 x 10 mm pan head screws.
4. Fasten these six M3 x 6 mm flat head screws (three on each side).
5. Fasten these two M3 x 6 mm flat head screws.
6. Attach the upgrade label to the axis module under the data name label. This will notify future technicians that an upgrade kit has been installed.

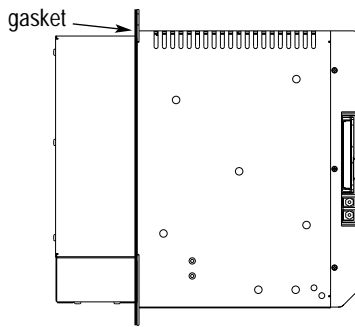
7. Go to *Re-mounting the Axis Module*.

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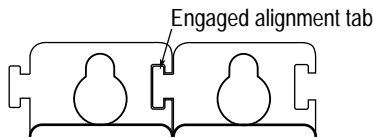
Re-mounting the Axis Module

To re-mount the axis module:

1. Install the top mounting fastener on the system panel for the axis module. The head of the fastener should be at least 0.25 in. from the panel.
- 2.



If you are mounting an AM50/75:	Do this:
With the heat sink through the back of the enclosure	<ol style="list-style-type: none"> 1. Remove the paper backing from the gasket that came with the kit. 2. Position the gasket so that the small hole side is on top. 3. Slide the gasket over the heat sink and attach it to the back of the axis module. 4. Go to step 3.
With the heat sink inside the enclosure	Go to step 3.



3. Hang the AM50/75 axis module on the mounting fastener.
4. Engage the alignment tab.
5. Slide the slide-and-lock mechanism on the AM50/75 axis module to the left until it locks into place.
6. Install the lower fastener for the AM50/75 axis module.
7. If not already attached, attach the terminator to the last axis module slide-and-lock mechanism until it locks in place.
8. Tighten all mounting fasteners.
9. Reconnect TB1, TB2, motor, and ground wires.
10. Apply power to the system.
11. Verify that the system is operating properly.

Note: Because system and axis parameters reside in the system module software, you do not need to perform any tuning or setup at this time.

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