Agilent 75000 SERIES B

**E1300B/E1301B Mainframe
E1306A Command Module
Memory Module**

Installation Note

Agilent Technologies

E1300-90027
E0206

Errata

Agilent References in this manual

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Agilent E1300B/E1301B Mainframes and E1306A Command Module
Memory Module Installation Note
Edition 2 Rev 2

Printing History

The Printing History shown below lists all Editions and Updates of this manual and the printing date(s). The first printing of the manual is Edition 1. The Edition number increments by 1 whenever the manual is revised. Updates, which are issued between Editions, contain replacement pages to correct the current Edition of the manual. Updates are numbered sequentially starting with Update 1. When a new Edition is created, it contains all the Update information for the previous Edition. Each new Edition or Update also includes a revised copy of this printing history page. Many product updates or revisions do not require manual changes and, conversely, manual corrections may be done without accompanying product changes. Therefore, do not expect a one-to-one correspondence between product updates and manual updates.

Edition 1 (Part Number E1300-90021). . . . . September 1990

Edition 2 (Part Number E1300-90027). January 1995

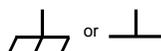Edition 2 Rev 2 (Part Number E1300-90027) . . . . February 2006

Safety Symbols

Instruction manual symbol affixed to product. Indicates that the user must refer to the manual for specific WARNING or CAUTION information to avoid personal injury or damage to the product.

Indicates the field wiring terminal that must be connected to earth ground before operating the equipment—protects against electrical shock in case of fault.

Frame or chassis ground terminal—typically connects to the equipment's metal frame.

Alternating current (AC).

Direct current (DC).

Indicates hazardous voltages.

WARNING Calls attention to a procedure, practice, or condition that could cause bodily injury or death.

CAUTION Calls attention to a procedure, practice, or condition that could possibly cause damage to equipment or permanent loss of data.

WARNINGS

The following general safety precautions must be observed during all phases of operation, service, and repair of this product. Failure to comply with these precautions or with specific warnings elsewhere in this manual violates safety standards of design, manufacture, and intended use of the product. Agilent Technologies assumes no liability for the customer's failure to comply with these requirements.

Ground the equipment: For Safety Class 1 equipment (equipment having a protective earth terminal), an uninterruptible safety earth ground must be provided from the mains power source to the product input wiring terminals or supplied power cable.

DO NOT operate the product in an explosive atmosphere or in the presence of flammable gases or fumes.

For continued protection against fire, replace the line fuse(s) only with fuse(s) of the same voltage and current rating and type. DO NOT use repaired fuses or short-circuited fuse holders.

Keep away from live circuits: Operating personnel must not remove equipment covers or shields. Procedures involving the removal of covers or shields are for use by service-trained personnel only. Under certain conditions, dangerous voltages may exist even with the equipment switched off. To avoid dangerous electrical shock, DO NOT perform procedures involving cover or shield removal unless you are qualified to do so.

DO NOT operate damaged equipment: Whenever it is possible that the safety protection features built into this product have been impaired, either through physical damage, excessive moisture, or any other reason, REMOVE POWER and do not use the product until safe operation can be verified by service-trained personnel. If necessary, return the product to an Agilent Technologies Sales and Service Office for service and repair to ensure that safety features are maintained.

DO NOT service or adjust alone: Do not attempt internal service or adjustment unless another person, capable of rendering first aid and resuscitation, is present.

DO NOT substitute parts or modify equipment: Because of the danger of introducing additional hazards, do not install substitute parts or perform any unauthorized modification to the product. Return the product to an Agilent Technologies Sales and Service Office for service and repair to ensure that safety features are maintained.

Installing Memory into an Agilent E1300B/E1301B Mainframe

Description

You can install one or two memory modules onto the controller circuit board in the Agilent E1300B/E1301B Mainframe. Any combination of the 512kByte and 1MByte modules can be used to produce 512 k, 1 M, 1.5M or 2M of nonvolatile memory. The new memory will be used instead of (not in addition to) the standard 64k of built-in controller board memory.

Warnings and Cautions

WARNING	**SHOCK HAZARD. Only service-trained personnel who are aware of the hazards involved should install, remove, or configure the system. Before you perform any procedures in this guide, disconnect AC power and field wiring from the mainframe.**

Caution	**Do not install or remove modules with power applied to the mainframe. Doing so may damage the modules and the mainframe.**

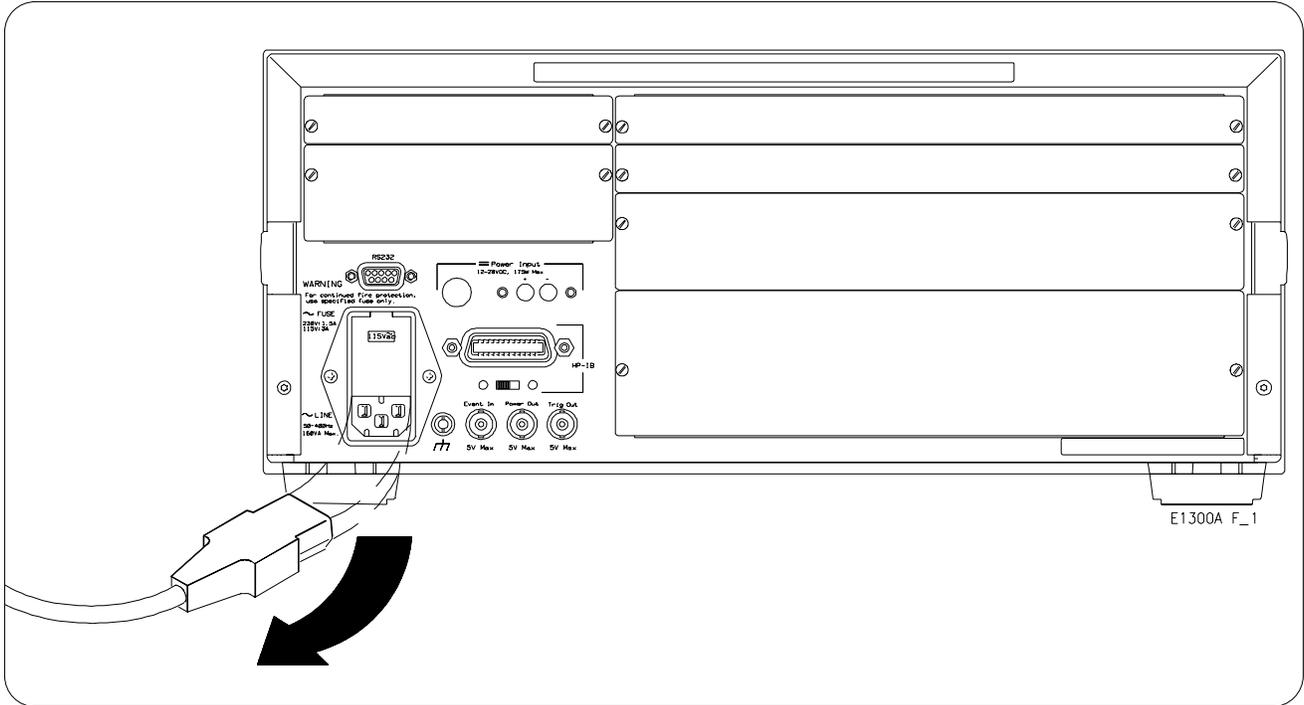|	
Caution	**STATIC ELECTRICITY. Static electricity is a major cause of component failure. To prevent damage to the electrical components in the mainframe, plug-in modules, and memory modules, observe anti-static techniques whenever handling any of this equipment.**

Installation Kit

The following items comprise the memory module installation kit:

- #10 Torx®* Key - 1 each
- #10 Torx® screws - 4 each
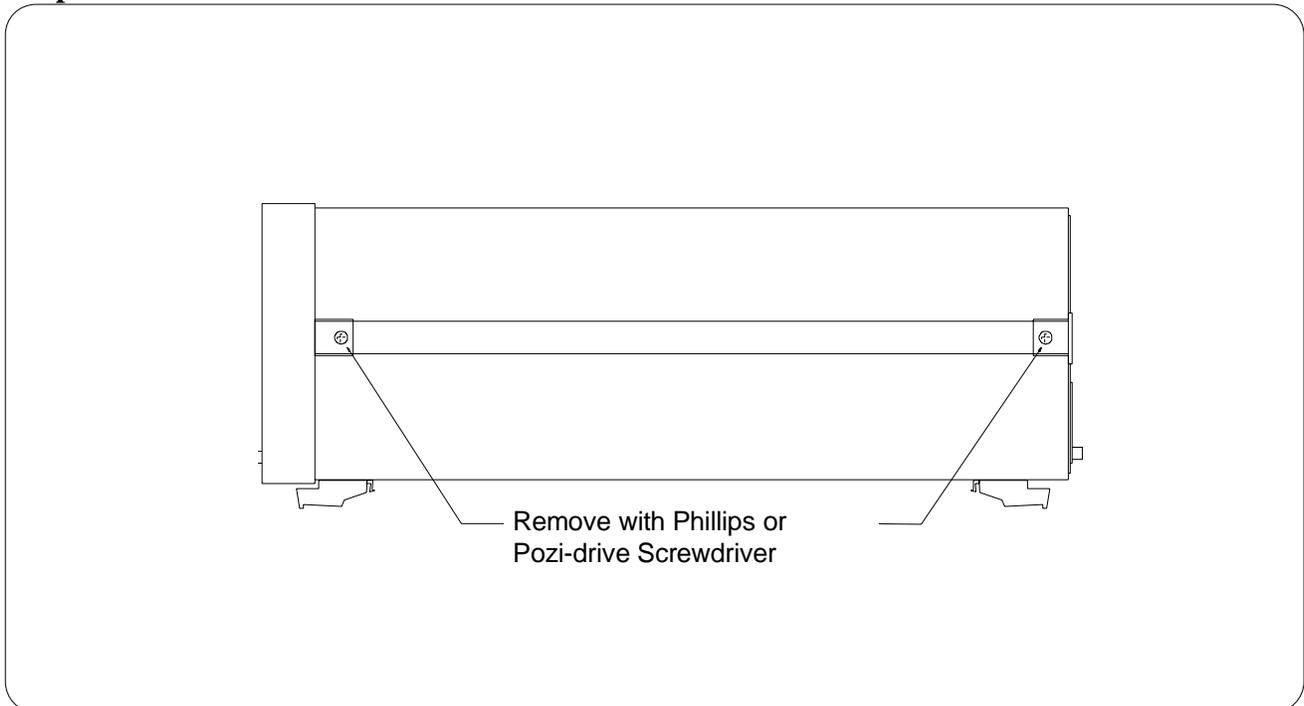- Nonvolatile Memory Module - 1 each

* Torx is a registered trademark of the Camcar Division of Textron Inc.
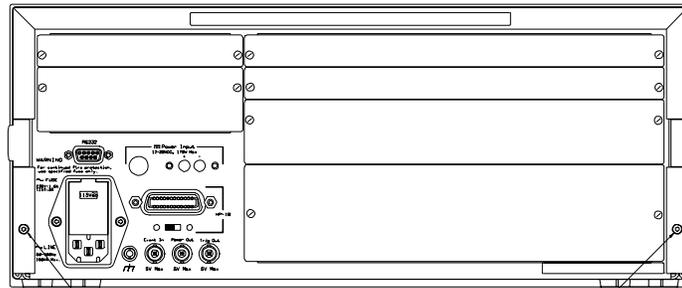
Installation Procedure

Step 1: Disconnect the mainframe's power.

E1300A F_1

Step 2: Remove the mainframe's side handles.

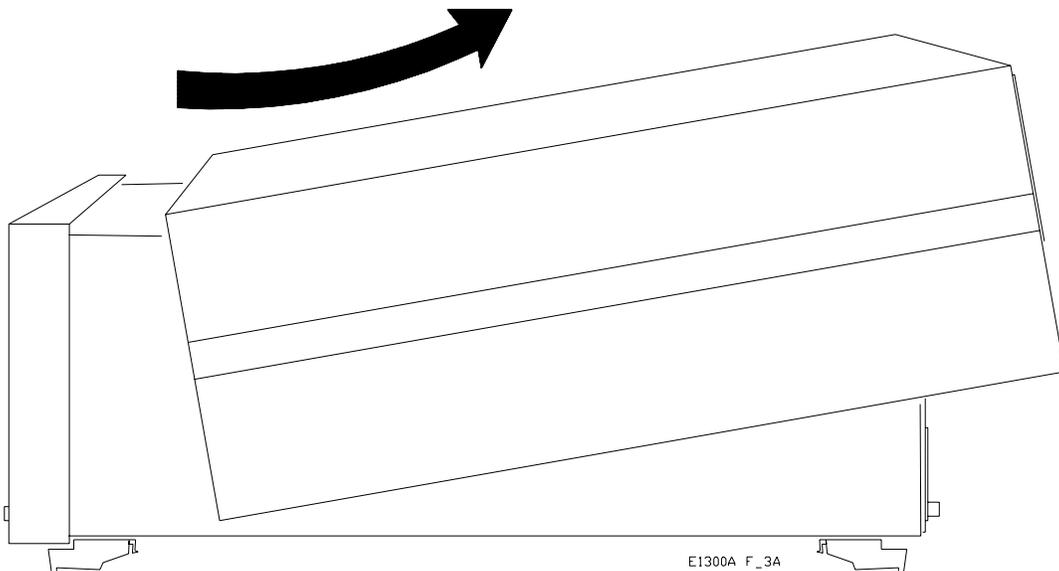Remove with Phillips or
Pozi-drive Screwdriver

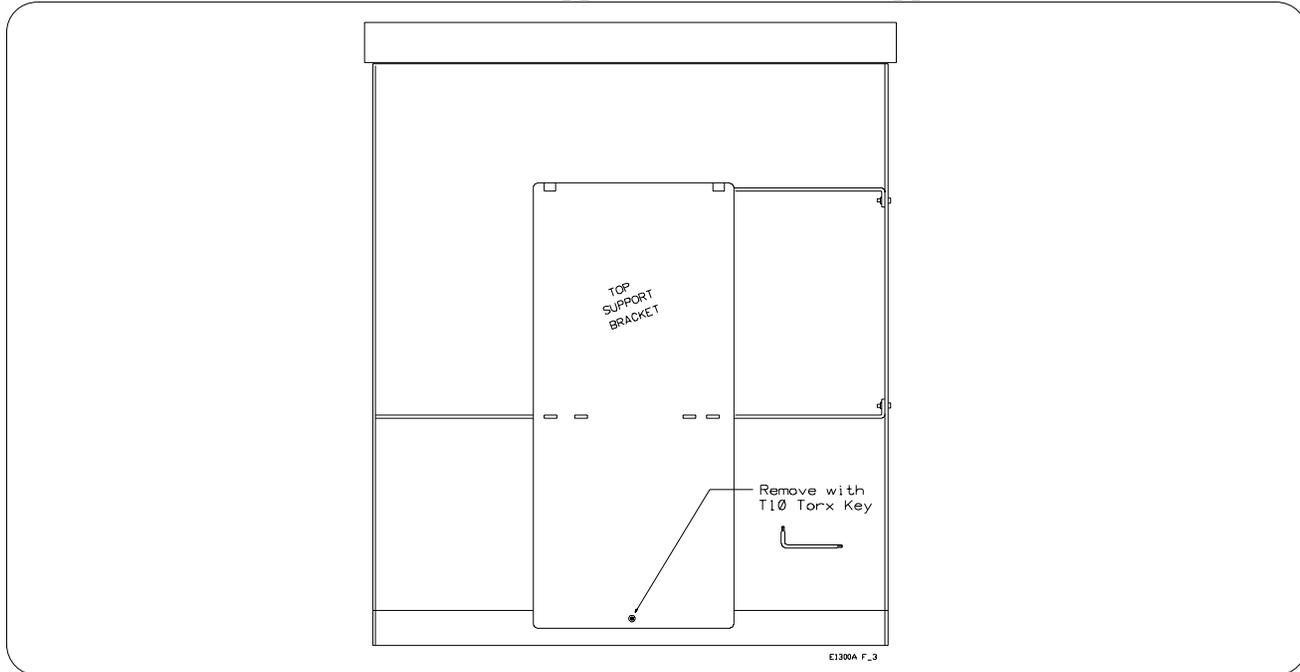**Step 3: Remove the Torx® screws on the rear of the mainframe.**

Remove with T10 Torx Key

Step 4: Slide the top cover toward the rear, lift and remove the cover.
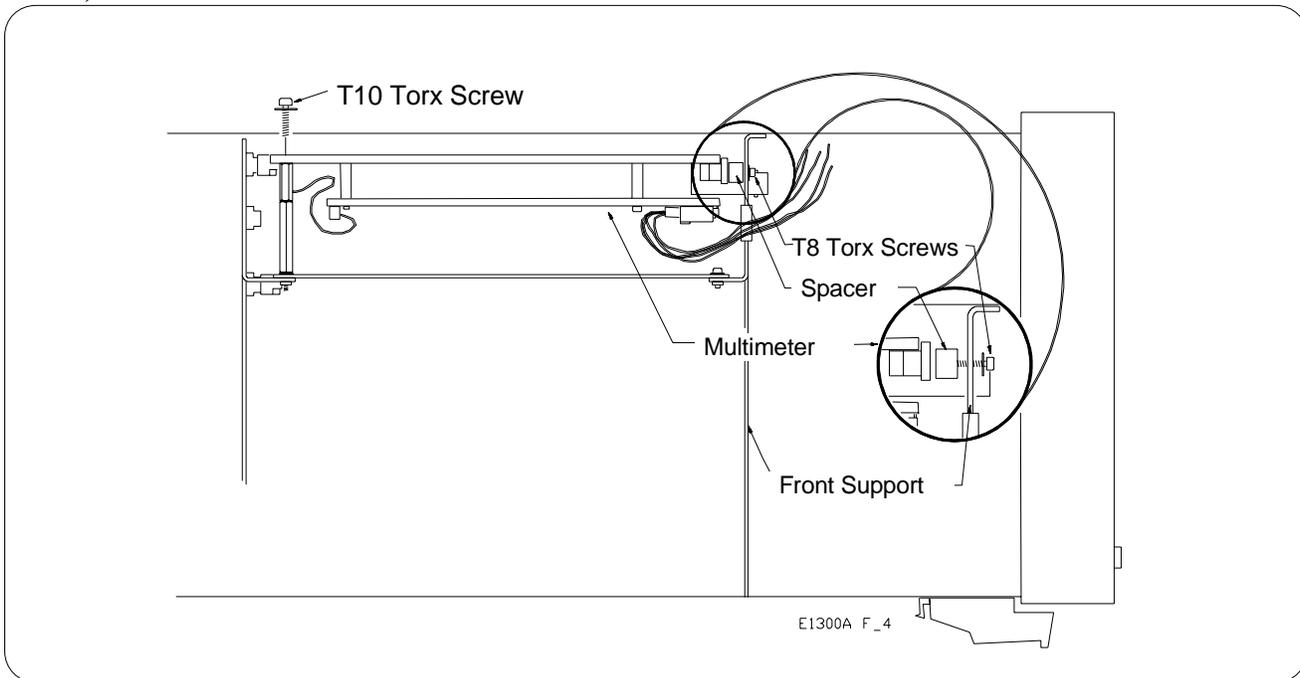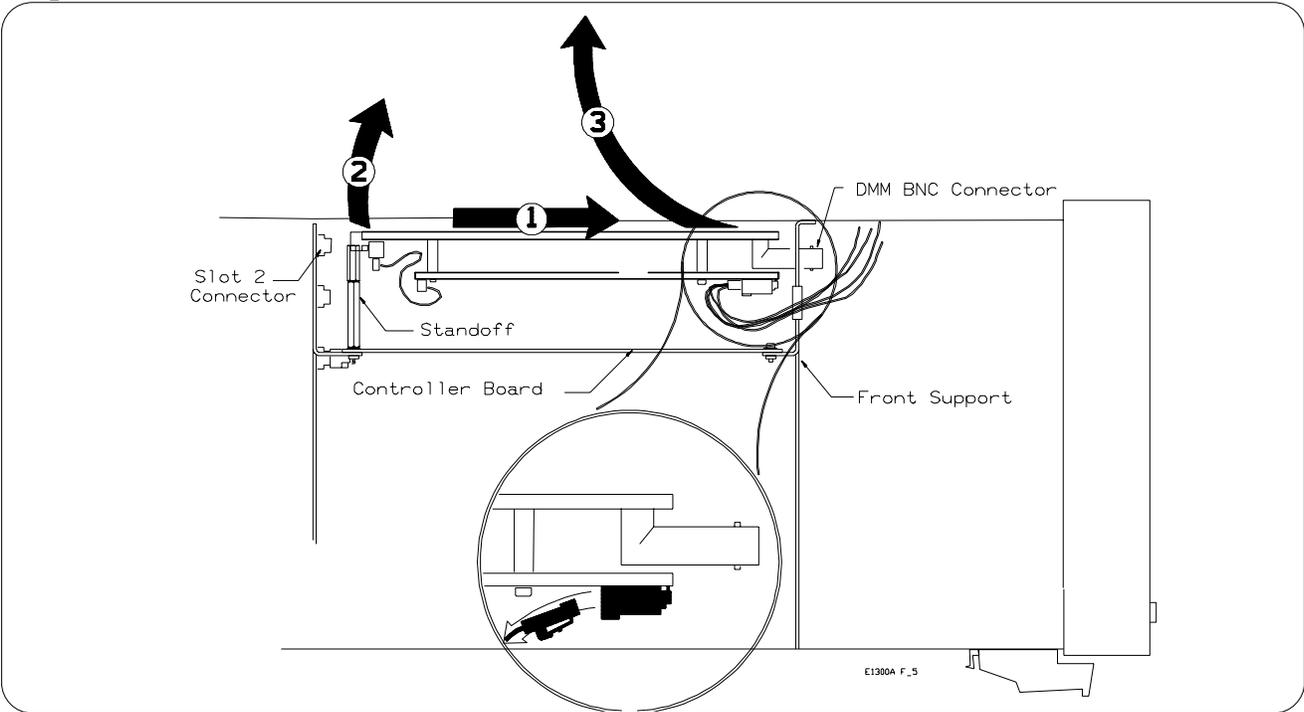
E1300A F_3A

Step 5: Remove the screw securing the support bracket. Lift the rear of the support bracket to disconnect it from the controller front support and remove the support bracket.
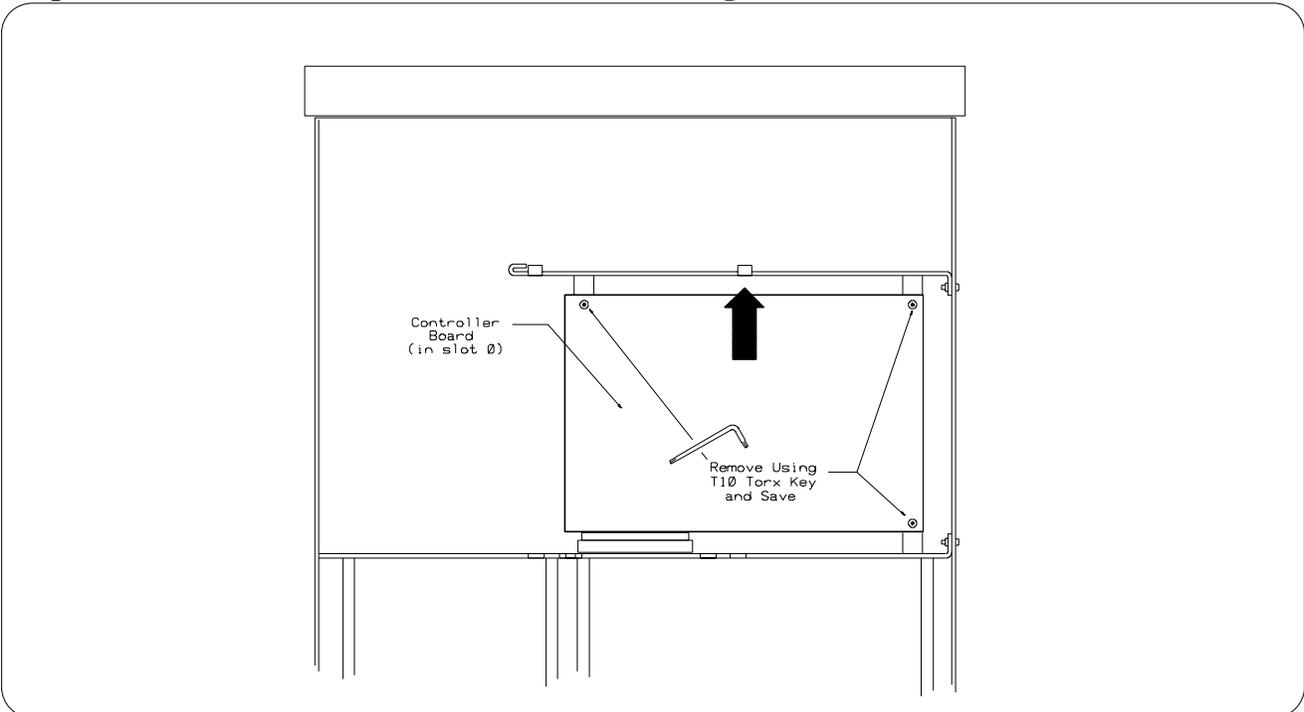
TOP
SUPPORT
BRACKET

Remove with
T10 Torx Key

E1300A F_3

Step 6: If you have an internal Agilent E1326 5 1/2 Digit Multimeter, disconnect the BNC cable, and remove the three Torx® screws.

T10 Torx Screw

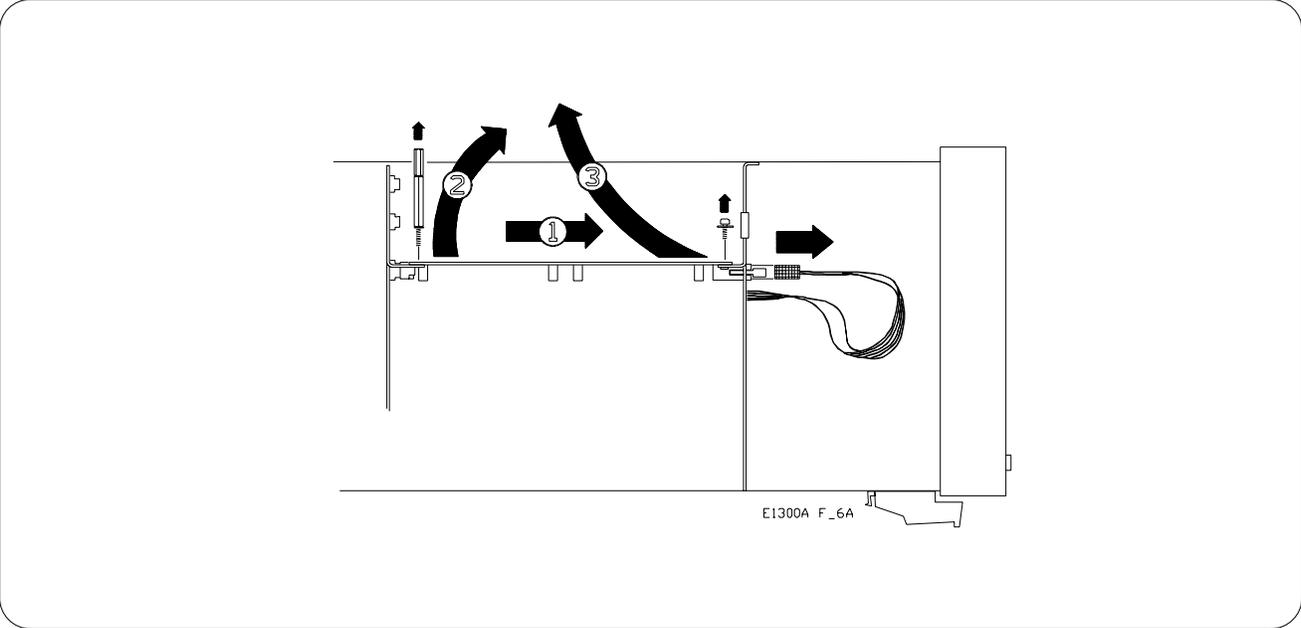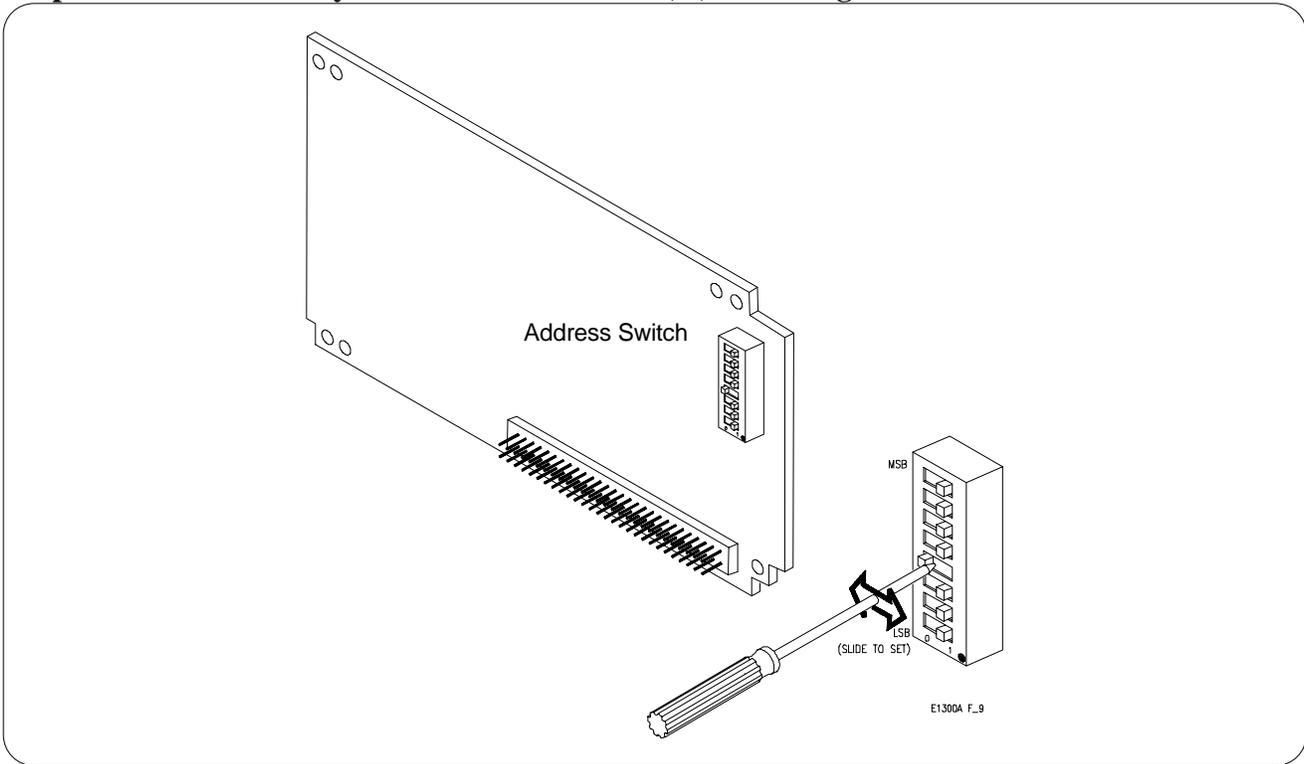T8 Torx Screws

Spacer

Multimeter

Front Support

E1300A F_4

Step 7: Remove the multimeter.

Slot 2
Connector

Standoff

Controller Board

DMM BNC Connector

Front Support

E1300A F_5

Step 8: Remove the three T10 Torx® screws securing the controller board.

Controller
Board
(in slot 0)

Remove Using
T10 Torx Key
and Save

Step 9: Remove the controller module's ribbon cable connector(s) (the E1300 has one ribbon cable, the E1301 has two cables). Push the controller module forward through the front controller support to disconnect it from the J1 connector. Remove the controller module.

E1300A F_6A

Step 10: Set the memory module address switch(es) according to Table 1-1.

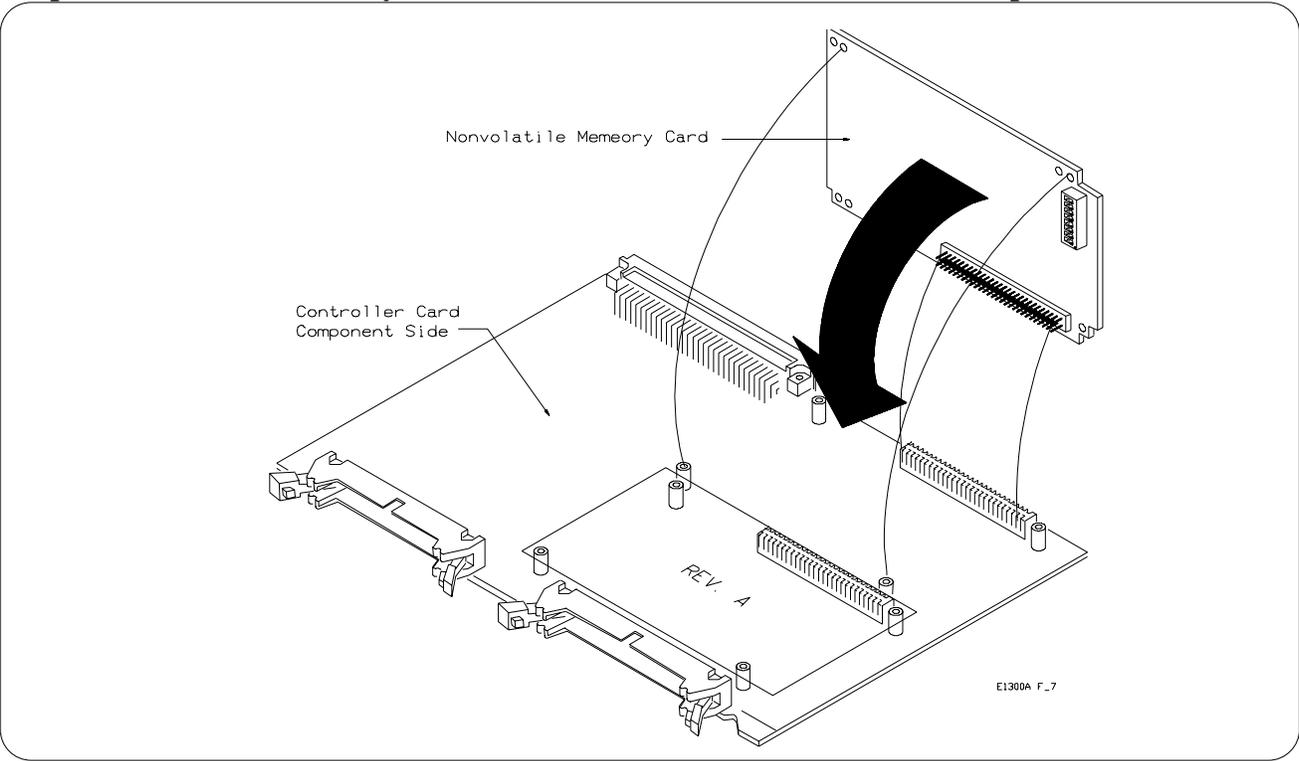Address Switch

MSB

LSB
(SLIDE TO SET)

E1300A F_9

For example, in the figure above, the four Most Significant Bit (MSB) switches are shown in the "1" position, the next bit is shown in the "0" position. The three Least Significant bit switches (shown in the "1" position) are not used and may be in either the "1" or "0" position. Only the four Most Significant Bit address switches need to be set for the 1 MByte modules; or five Most Significant Bit address switches for the 512 kByte modules. Note: Ignore any numbering on the switch bank. Use the figure above to properly orient the address switch.

Table 1-1. Memory Module Address Switch Settings

Module(s) being installed:	Set one module's address to: ("x" signifies a "Don't Care" state)	Set the other module's address to: ("x" signifies a "Don't Care" state)
One 1 MByte Module	MSB LSB 1 1 1 1 x x x x	
Two 1MByte Modules	MSB LSB 1 1 1 1 x x x x	MSB LSB 1 1 1 0 x x x x
One 512 kByte Module	MSB LSB 1 1 1 1 1 x x x	
Two 512 kByte Modules	MSB LSB 1 1 1 1 1 x x x	MSB LSB 1 1 1 1 0 x x x
One 1 MByte Module and One 512 kByte Module	Set the **1MByte** module address to: MSB LSB 1 1 1 1 x x x x	Set the **512 kByte** module address to: MSB LSB 1 1 1 0 1 x x x

Step 11: Install the memory module(s) and fasten with the Torx® screws provided.

Nonvolatile Memeory Card

Controller Card
Component Side

REV. A

E1300A F_7

Step 12: Reassemble the mainframe.

Chapter 2
Installing Memory into an
Agilent E1306A Command Module

Description

You can install one or two 1MByte memory modules into an Agilent E1306A Command Module. The new memory will be used instead of (not in addition to) the standard 64k of built-in Command Module memory.

Warnings and Cautions

WARNING **SHOCK HAZARD. Only service-trained personnel who are aware of the hazards involved should install, remove, or configure the system. Before you perform any procedures in this guide, disconnect AC power and field wiring from the mainframe.**

Caution **Do not install or remove modules with power applied to the mainframe. Doing so may damage the modules and the mainframe.**

Caution **STATIC ELECTRICITY. Static electricity is a major cause of component failure. To prevent damage to the electrical components in the mainframe, plug-in modules, and memory modules, observe anti-static techniques whenever handling any of this equipment.**

Installation Kit

The following items are included in the memory module installation kit:
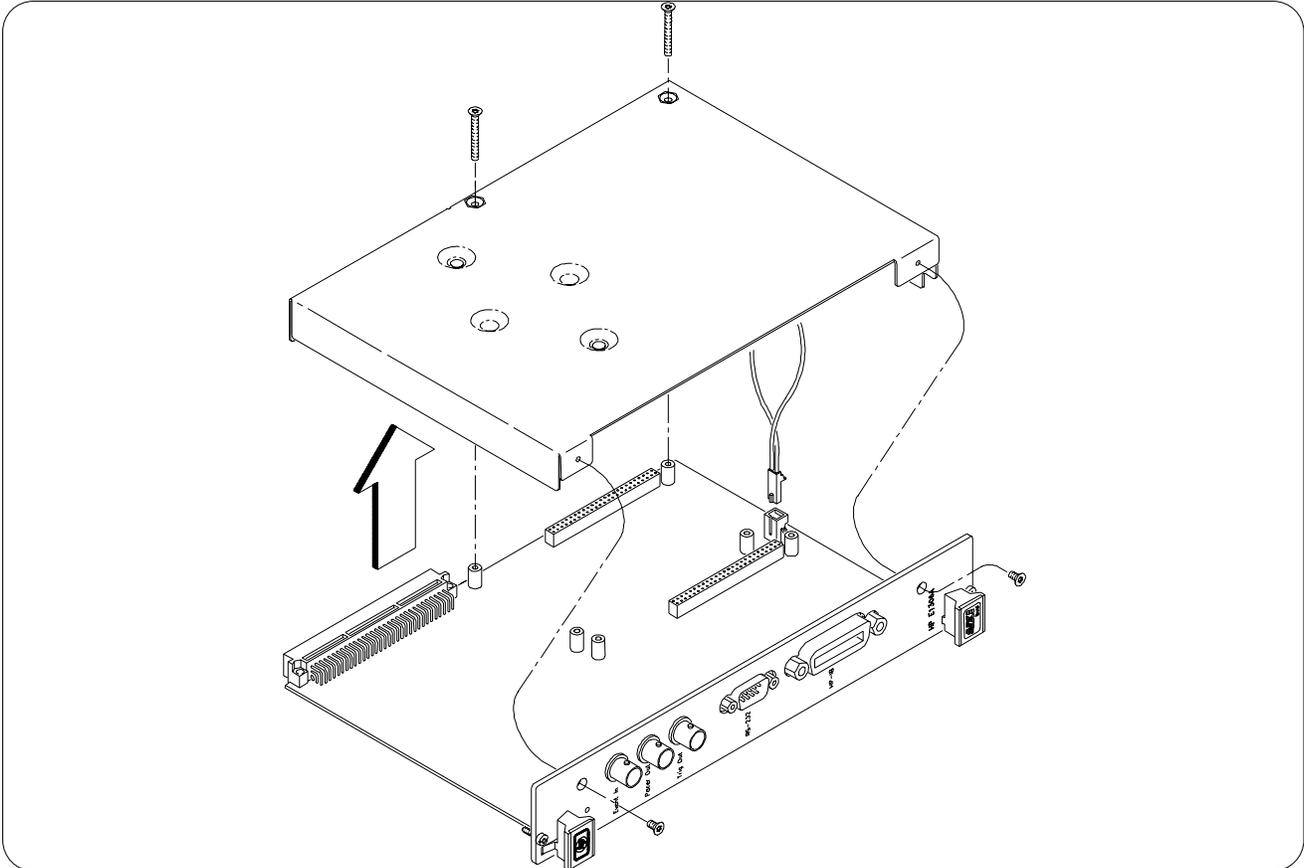
- #10 Torx®* Key - 1 each
- #10 Torx® screws - 4 each
- 1MByte Nonvolatile Memory Module - 1 each

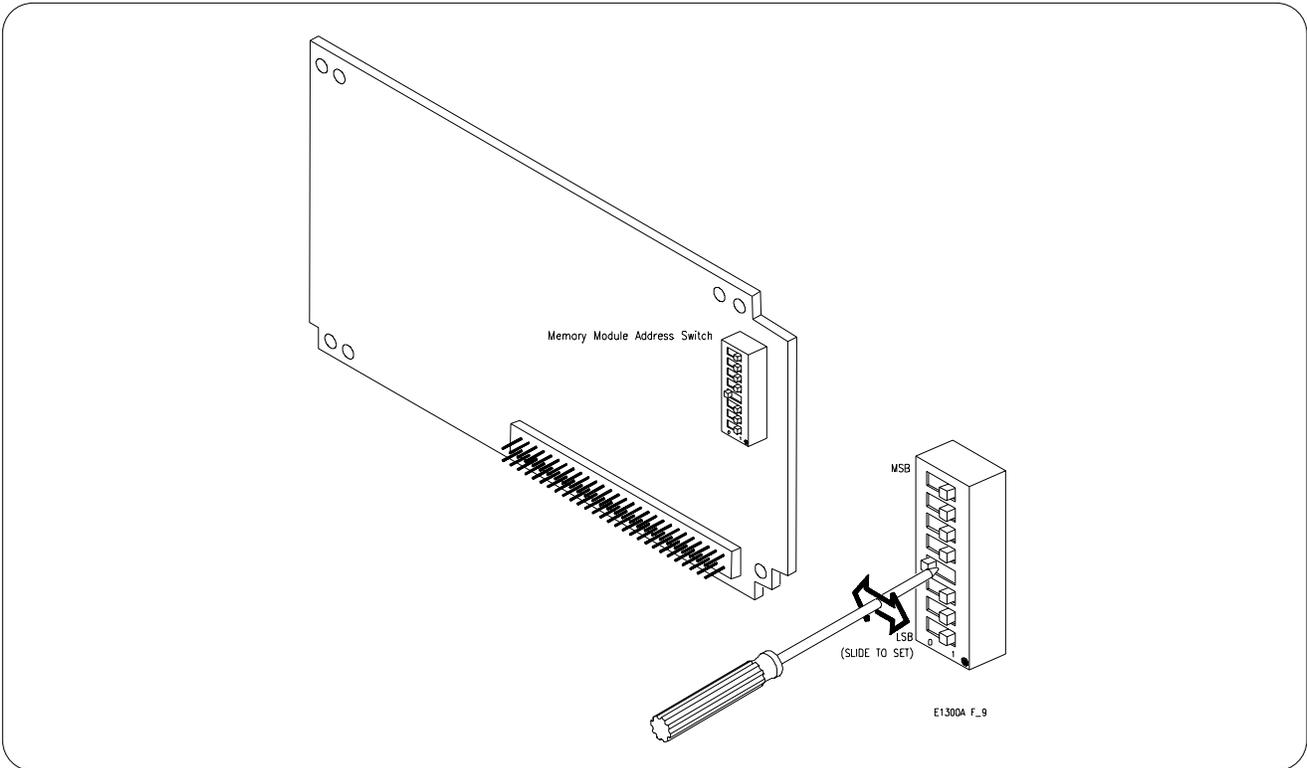* Torx is a registered trademark of the Camcar Division of Textron Inc.

Installation Procedure

Step 1: If the Agilent E1306A Command Module is installed in a mainframe, disconnect power to the mainframe and remove the Command Module.

Step 2: Remove the Command Module's shield.

Step 3: Set the memory module address switch(es) according to Table 2-1.
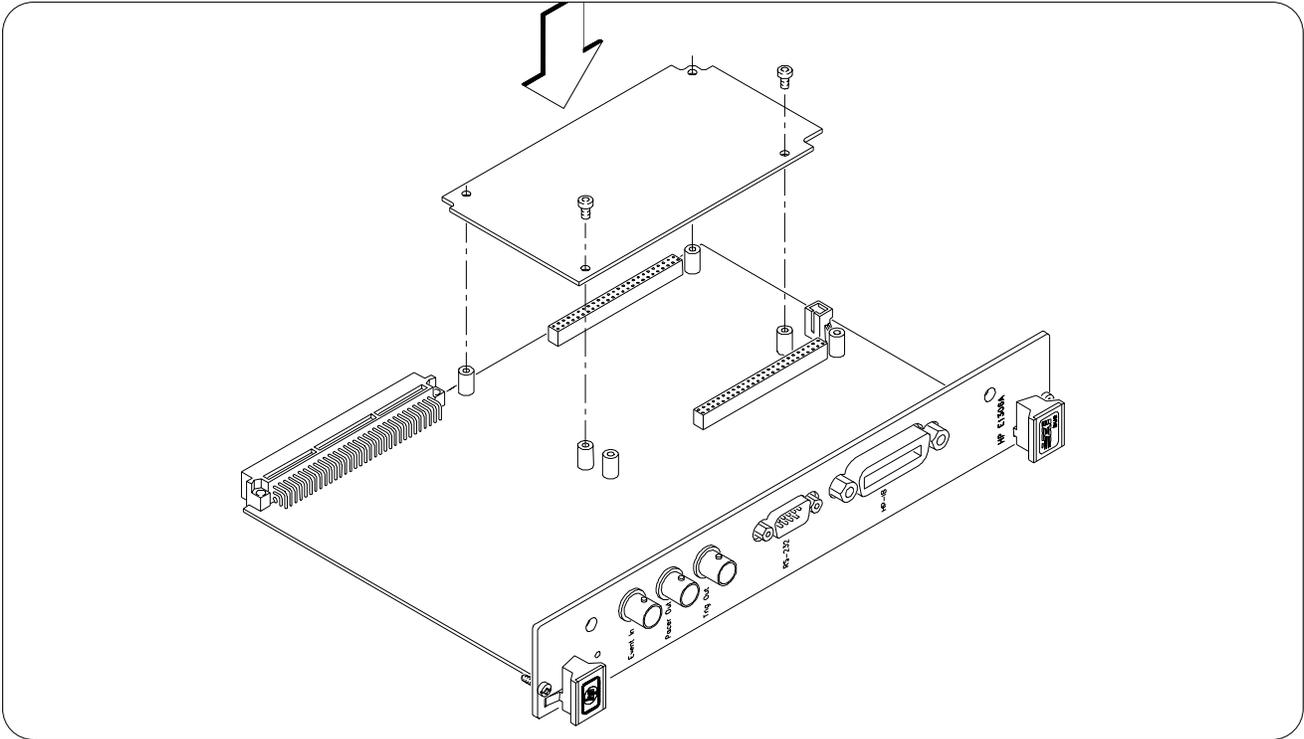

For example, in the figure above, the four Most Significant Bit (MSB) switches are shown in the "1" position, the next bit is shown in the "0" position. The three Least Significant bit switches (shown in the "1" position) are not used and may be in either the "1" or "0" position. Only the four Most Significant Bit address switches need to be set for the 1 MByte modules; or five Most Significant Bit address switches for the 512 kByte modules. Note: Ignore any numbering on the switch bank. Use the figure above to properly orient the address switch.

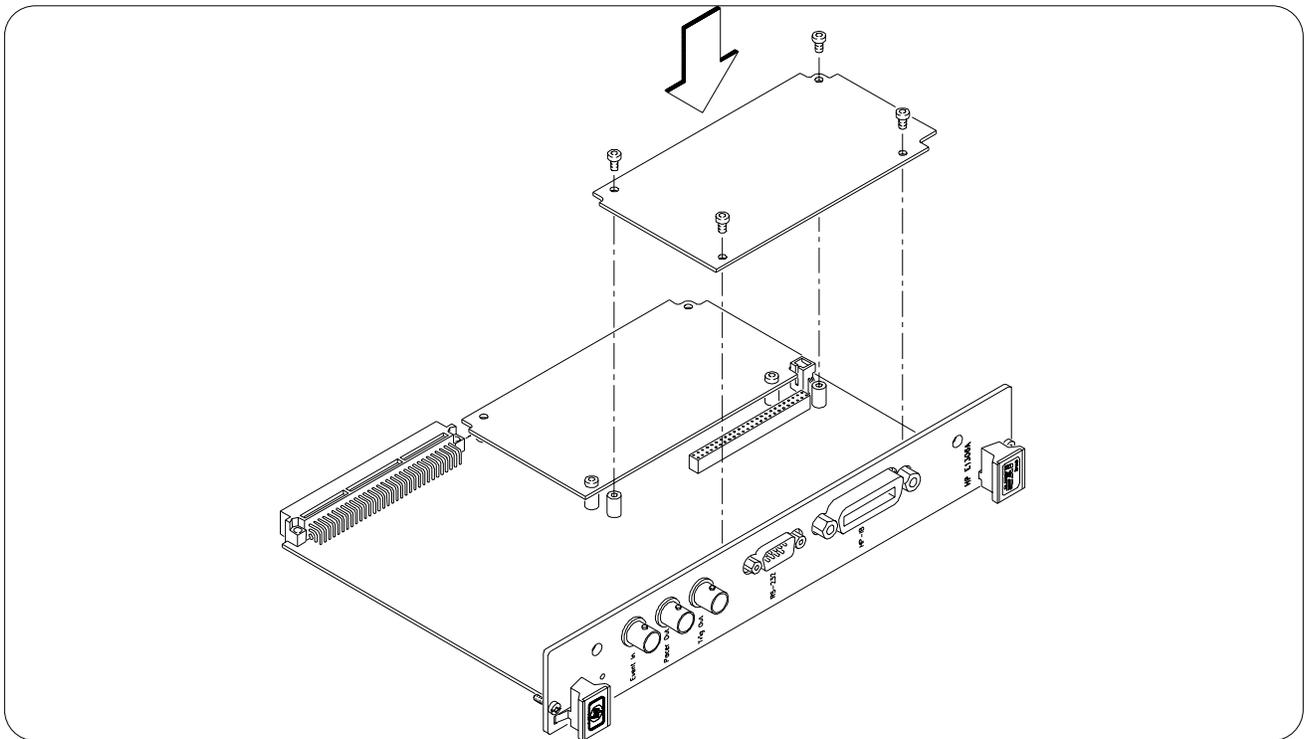**Table 2-1. Memory Module Address Switch Settings**

Module(s) being installed:	Set one module's address to:	Set the other module's address to:
One 1 MByte Module	MSB LSB 1 1 1 1 x x x x	
Two 1MByte Modules	MSB LSB 1 1 1 1 x x x x	MSB LSB 1 1 1 0 x x x x

("x" signifies a "Don't Care" state)

Step 4: Install the memory module and fasten with two Torx® screws.

Step 5: (Optional) Install second memory module and fasten with four Torx® screws.

Step 5: Reassemble the Command Module.