

EASTMAN®

**THE EASTMAN®
M90 Upgrade Installation Kit**

for EasiCut v2.

Part No. 96-26045

Please read completely before attempting to install your
new **M90 Upgrade kit.**



Eastman®
AUTOMATED SYSTEMS

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Manufacturers of Eastman Cloth Cutting and Cloth Spreading Machines
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Table of Contents

General Safety Precautions	3
Safety Information	3
Kit Familiarization	4
Figure 1: Kit Components	4
INSTALLATION	5
Kit Installation	5
Figure 2: Back of Computer.	6
Figure 3: 5 & 12 volt Cable.	6
Figure 5: Back Interface Panel.	7
Figure 4: Floppy Drive Ribbon Cable.	7
Figure 7: I/O Board install.	8
Figure 6: Computer Mounting Plate.	8
Figure 8: Computer Installation.	9
Figure 9: 5 & 12 volt Cable Install.	9
Figure 11: I/O Cable Install.	10
Figure 10: Floppy Drive Ribbon Cable Install.	10
Figure 12: X & Y Cable Install.	11
Figure 13: Monitor, Keyboard & Mouse Cable Install.	11
Figure 14: I/O card Dip switch settings.	12

IMPORTANT

The purchaser must instruct all operators on the proper use of this equipment. All standard industrial safety measures and equipment should be provided to protect the operator. Operators must be cautioned that improper or careless use of this equipment may cause personal injury. If you do not have qualified operators to instruct new persons, contact your EASTMAN sales representative or EASTMAN factory direct.

Electrical connections and servicing to this equipment should be made by a qualified electrician who is familiar with applicable codes and regulations. Disconnect this equipment from electrical power source before proceeding with any disassembly for adjustment or repair.

Your Eastman **M90** is designed to operate at a high rate speed. All personnel should be instructed to wear safety glasses and stand well clear of the **M90** when in operation.

Safety Information

Throughout this manual, safety information is presented by the use of the terms WARNING, CAUTION, and NOTE. These terms have the following meanings:

WARNING

A warning contains critical information regarding potential safety hazards that can occur during proper use or misuse of the machine. Failure to follow these procedures may result in serious personal injury to the user.

CAUTION

A caution contains instructions for the use or maintenance of the machine. Failure to follow these procedures may result in damage to the machine. Supplementary information may be given in a Note.

ELECTRICAL HAZARD

An electrical hazard calls attention to a procedure, practice, or the like, which, if not correctly performed or adhered to, could result in personal injury. Do not proceed beyond an Electrical Hazard.

General Safety Precautions

WARNING

- This machine is equipped with a powerful roller tube and edge platform. Keep hands, arms, and hair away from the roller tubes and edge platform at all times. Safety gloves, glasses, and appropriate clothing may prevent serious personal injuries.
- Disconnect the power supply to the machine when it is not in use or during routine maintenance, including cleaning and lubrication.
- The purchaser must instruct all operators in the proper use of the machine according to the instructions in this manual. This training must include instruction on the potential safety hazards arising from the use or misuse of the machine. In addition to such training, the purchaser should provide written work instructions as necessary to ensure correct use of the machine for specific cutting and spreading applications.
- Do not modify this machine or disable safety features. Unauthorized modification may result in serious personal injuries to the user. Electrical connections to this machine must be made by a qualified electrician familiar with applicable codes and regulations.
- Safety labels must be kept clean and legible at all times. Call the Eastman Machine factory to order replacement labels.

Safety and Indemnification

During the life of the machine, the purchaser agrees to provide to all machine users (including its own employees and independent contractors) all relevant safety information, including warning labels and instruction manuals. The purchaser also agrees to maintain the safety features and working condition of the machine, and to adequately train all users in the safe use and maintenance of the machine. The purchaser agrees to defend, protect, indemnify, and hold Eastman Machine Company and its subsidiaries harmless from and against all claims, losses, expenses, damages, and liabilities to the extent that they have been caused by the purchaser's failure to comply with the terms and instructions of this manual.

EASTMAN

The **M90 Upgrade Installation kit** is shipped with all the parts and special tools necessary for proper installation. For ease of installation, familiarize yourself with all parts and assemblies of this kit. Before Installation can take place, it is important that you carefully read and follow the instructions in this manual in the same sequence in which they are presented.

Kit Familiarization

This M90 kit will upgrade your existing machine to except the latest version of Eastman's EasiCut software with the current monitor, keyboard and computer configuration. Refer to figure 1 for part familiarization.



X & Y Cable

Computer mounting
Plate 54-26662

Computer
Assembly

Flat Screen
Monitor

5&12 volt
Cable

Floppy Drive
Ribbon Cable

Lock Washer
& Wing Nut

Keyboard & Mouse
Assembly

Monitor Mounting
Plate 54-26664

Figure 1: Kit Components

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INSTALLATION



WARNING

Disconnect power source and air supply from machine before performing this installation. Failure to disconnect power source and air supply may cause serious personal injury.

Kit Installation

The **M90 upgrade Kit** is shipped partially assembled for ease of installation. Open shipping crate and familiarize yourself with all the components and assemblies.

1. Disconnect power source and air supply from gantry at this time.
2. Remove vacuum hose from laser.
3. Remove existing keyboard and monitor.
4. Remove computer from gantry assembly:
 - a. Unplug cables from back on computer (see figure 2).
 - b. Unplug 5 & 12 volts cable from top of control panel (see figure 3).
 - c. Unplug ribbon cable from floppy drive (see figure 4).
 - d. Remove computer from gantry.
5. Remove internal keyboard and mouse cables.
6. Install new internal keyboard and mouse cables (31-S3327) to back interface panel on gantry (see figure 5).
7. Remove X & Y drive control cables and replace with new cables (31-S3326). These cables connect the two stepper drives to the back of the computer.
8. Install computer mounting plate (54-26662) across beams, make sure plate will not interfere with drive shaft coupling (see figure 6). Once in place attach with self-taping screws through mounting holes.
9. Remove I/O card from old computer.
10. Install I/O card in new computer:
 - a. Check I/O card Dip switch settings before installation. 1-off, 2-on, 3-off, 4-off, 5-off, 6-off (see figure 14).
 - b. Open top of new computer and place I/O board into open slot next to MEI card (see figure 7). It will be at Left edge of motherboard.
11. Install *new* computer onto computer mounting plate located on the gantry (see figure 8). Note: The floppy drive cable must be under the control panel when installed.
12. Connect 5 & 12 volt cables to control panel (see figure 9).
13. Connect the floppy drive ribbon cable to the existing floppy drive on the gantry control panel (see figure 10).
14. Connect I/O cable to back of computer (see figure 11).
15. Connect X & Y cables to back of computer (see figure 12).
16. Connect monitor, keyboard, mouse and power cables to back of computer (see figure 13). Note: The cables connect the computer to the back panel interface.
17. Install the monitor and keyboard mounting plate (54-26664) to the gantry cover with the self-tapping screws provided. Note: The location of the mounting plate should provide a comfortable position for the operator.
18. Make a visual inspection of the internal gantry components and tighten any loose screws or connectors.
19. Replace the gantry cover at this time.
20. Mount the monitor to the monitor mounting plate (54-26664) with the lock washers and wing nuts provided. Connect the monitor cables to the back panel interface.
21. Secure the keyboard to the monitor mounting plate (54-26664) using velcro provide. Connect the keyboard and mouse cables to the back panel interface.
22. Replace vacuum hose.
23. Test machine and familiarize personnel with your new EasiCut software before cutting for production.

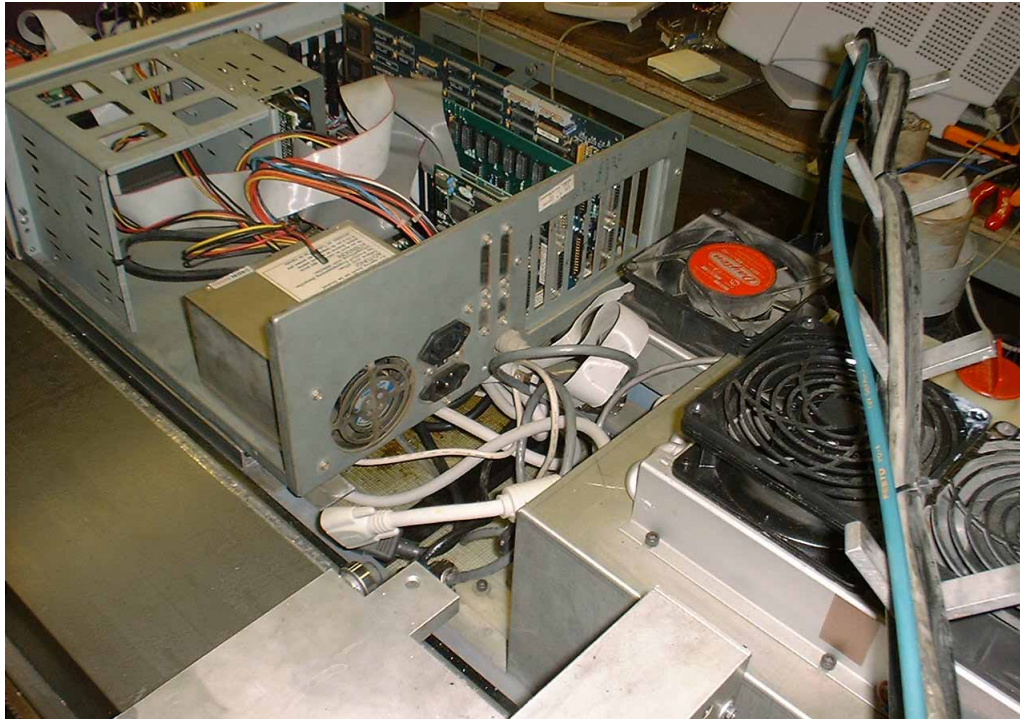


Figure 2: Back of Computer.

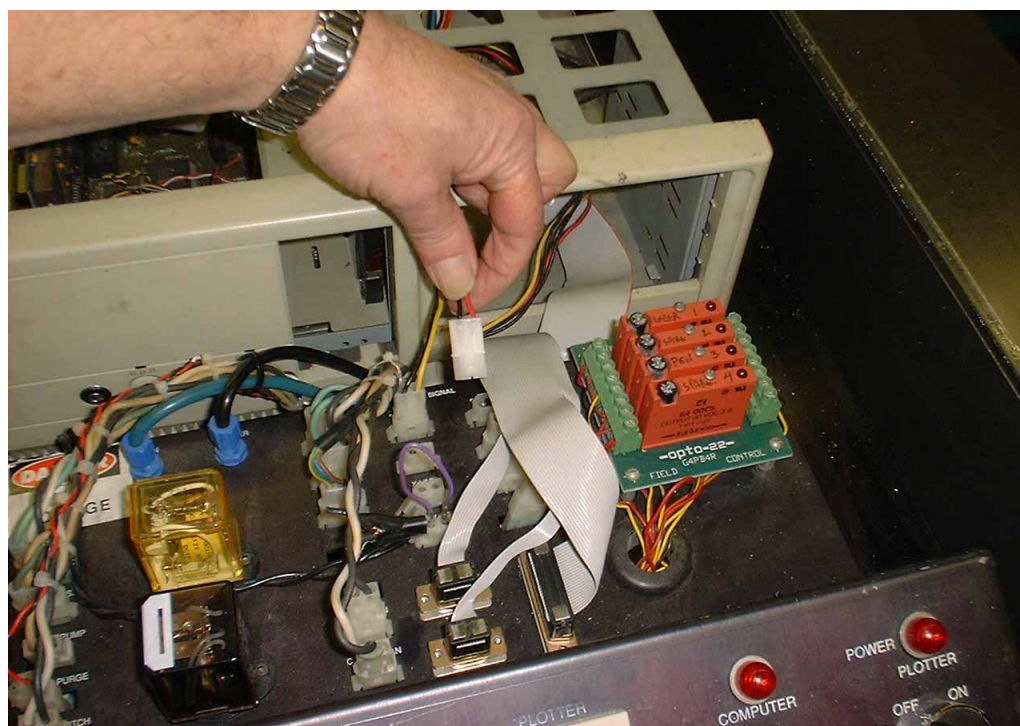


Figure 3: 5 & 12 volt Cable.

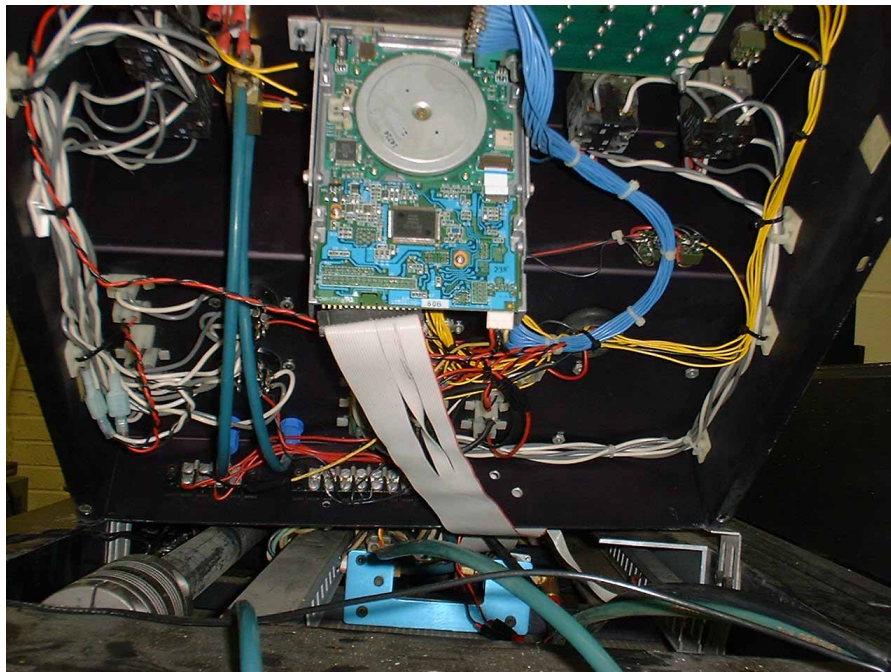


Figure 4: Floppy Drive Ribbon Cable.

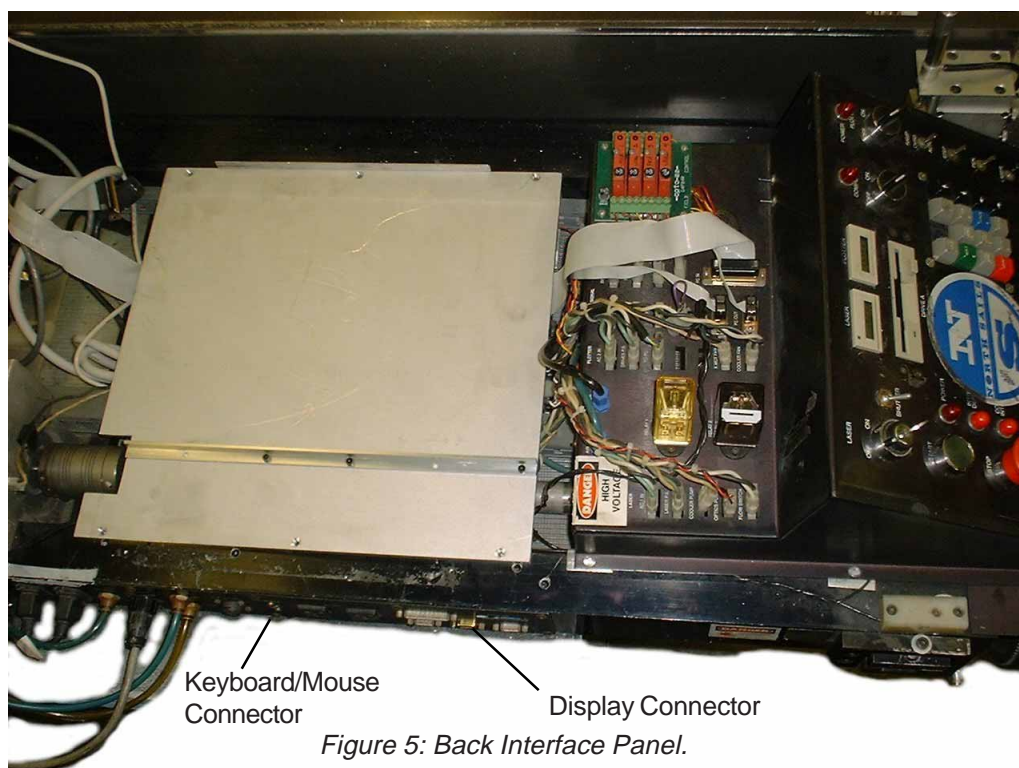


Figure 5: Back Interface Panel.



Figure 6: Computer Mounting Plate.

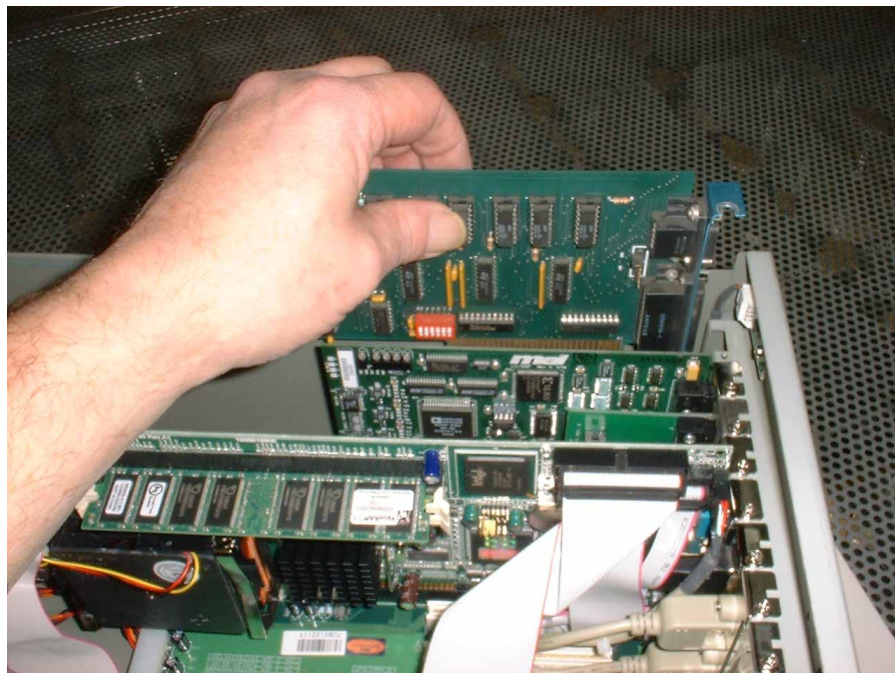


Figure 7: I/O Board install.



Figure 8: Computer Installation.

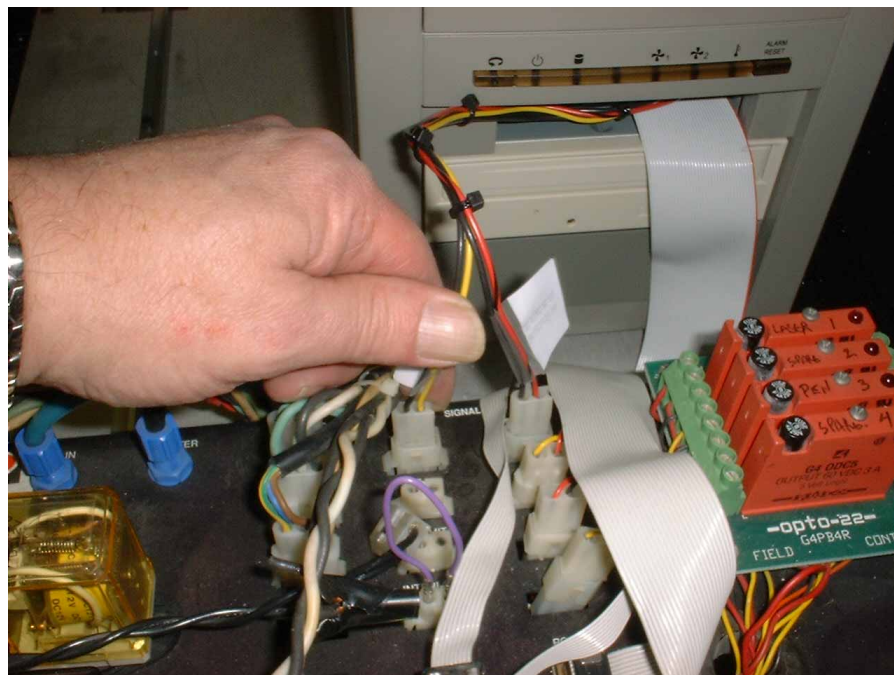


Figure 9: 5 & 12 volt Cable Install.

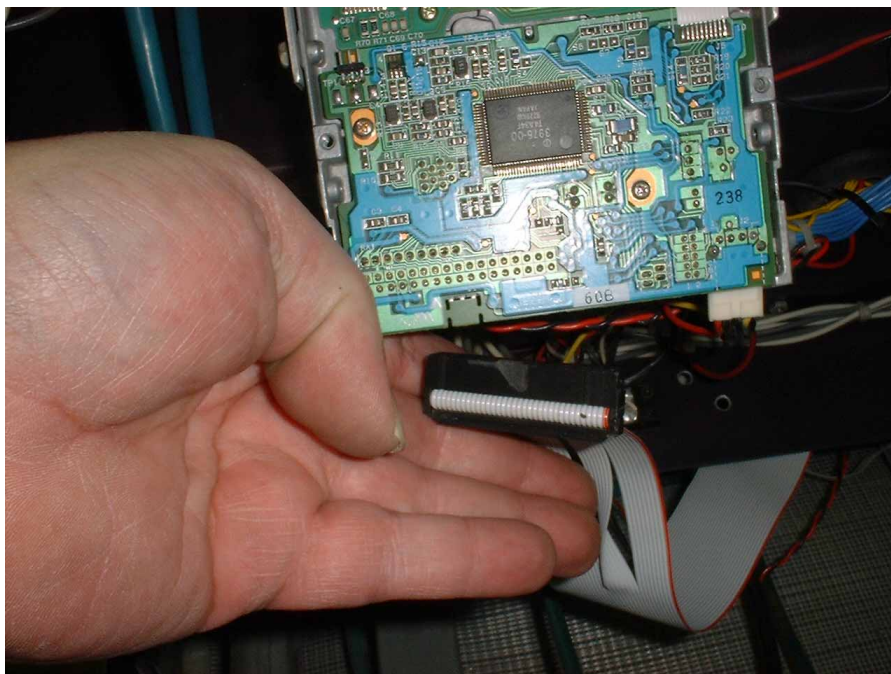


Figure 10: Floppy Drive Ribbon Cable Install.

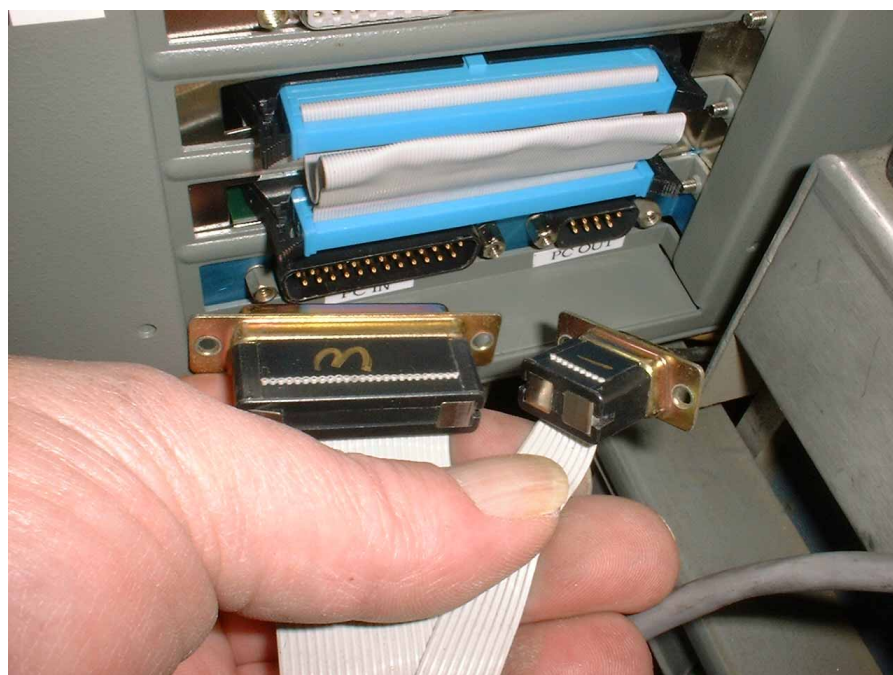


Figure 11: I/O Cable Install.



Figure 12: X & Y Cable Install.

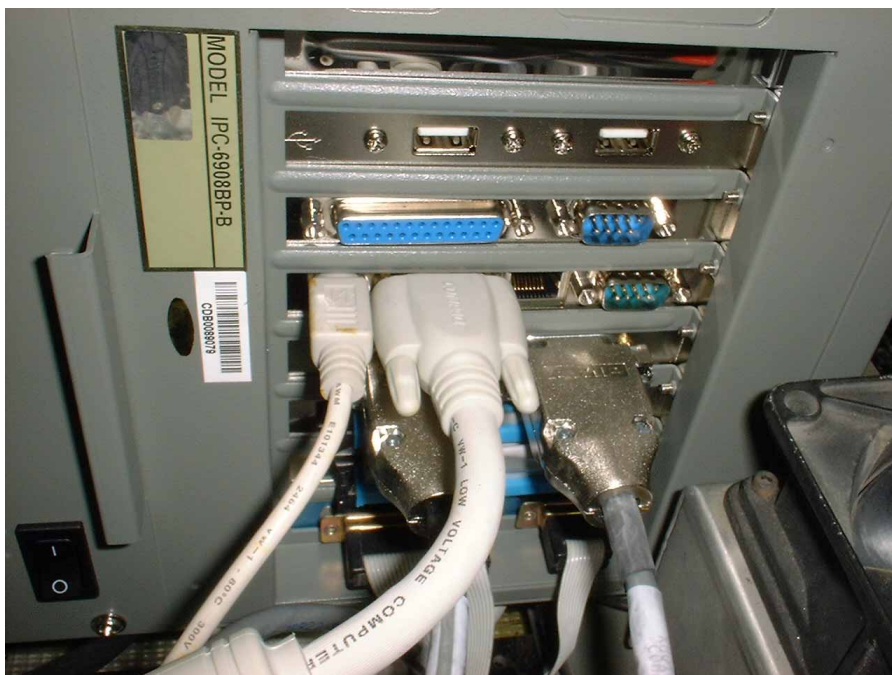
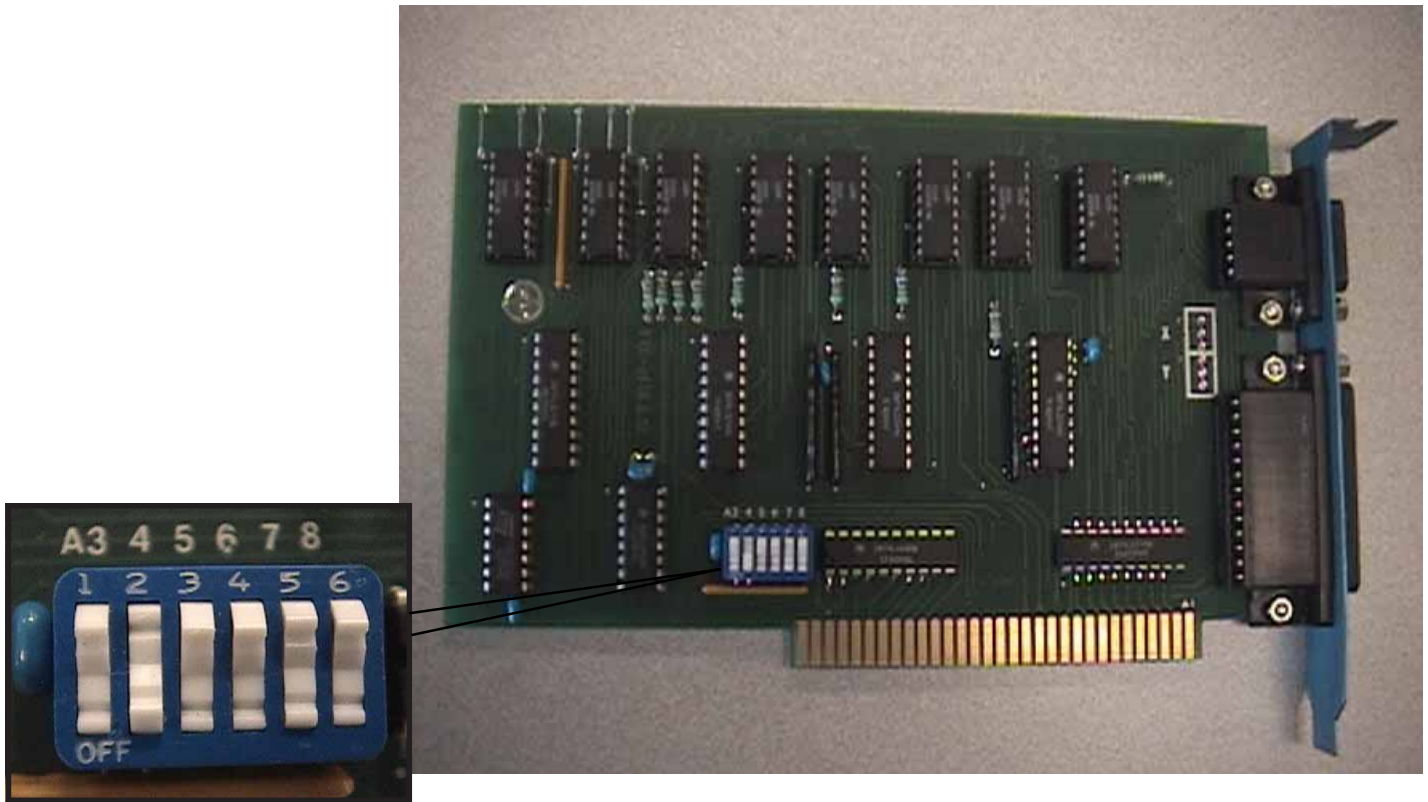


Figure 13: Monitor, Keyboard & Mouse Cable Install.



Dip switch settings before installation.
1-off, 2-on, 3-off, 4-off, 5-off, 6-off

Figure 14: I/O card Dip switch settings.

Limited Warranty. Eastman warrants to the buyer that the equipment shall be free from defects in materials or workmanship for a period of 180 days commencing on the date of invoice. Any goods or parts claimed by the buyer to be defective must be returned to Eastman, freight charges prepaid, within the 180-day warranty period. If Eastman determines that the goods or parts are defective in materials or workmanship, Eastman's sole obligation under this warranty shall be, at Eastman's sole option, to repair or replace the defective goods or parts or to provide the buyer a credit equal to the portion of the purchase price allocable to the defective goods or parts. This warranty shall not apply if defects are caused by product misuse or neglect, if the machine has been altered or modified by the buyer, or if other than genuine Eastman belts, emery wheels, knives or parts are used in the machine. THIS WARRANTY IS THE ONLY WARRANTY APPLICABLE TO THIS PURCHASE. SELLER DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Limitation of Liability. Eastman's liability to the buyer, and the buyer's remedies from Eastman, whether in contract, negligence, tort, under any warranty or otherwise, shall be limited to the remedies provided in the foregoing Limited Warranty. In no event shall Eastman have any responsibility or liability to the buyer for (a) any special, indirect, incidental, or consequential damages, including, but not limited to, loss of use, revenue, or profit, even if Eastman has been advised of the possibility of such damages, or (b) any claim against the buyer by any third party. The price stated for the product sold is a consideration for limiting Eastman's liability.

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