



Apple Service  
Technical Procedures  
Lisa/Macintosh XL

**Lisa Level I**  
**Technical Procedures**  
**#072-0085**

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# LISA TECHNICAL PROCEDURES MANUAL

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THE FOLLOWING TECHNICAL PROCEDURE UPDATES ARE INCLUDED IN THE  
MAY LISA/MACINTOSH XL TECHNICAL PROCEDURES MAILING

### LISA/MACINTOSH XL TECHNICAL PROCEDURES MANUAL

#### Lisa 2/Macintosh XL

**Video Take-Apart** - We have added modified system information to the CRT and Video Board replacements sections. Remove and replace procedures for the Screen Kit Transformer have been added.

**Video Adjustments** - we have added a reference on where to find procedures for height and width adjustments on modified systems.

**Diagnostics** - added screen kit and ROM configuration information.

**Troubleshooting** - The Lisa Lite Adaptor has had a name change to the Lisa Drive Adaptor Card. We have identified the most current diagnostic diskettes and when and how to use them. Information was also added to "How to Repair a Crashed Disk".



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### LISA/MACINTOSH XL TECHNICAL PROCEDURES MANUAL

#### Lisa 2/Macintosh XL

**General Information** - A new tab and section has been added to the Lisa 2/Macintosh XL section. This section includes information on system configurations for the Lisa 2, 2/5 and the XL (2/10), as well as the Modified Lisa 2/5 and Modified Macintosh XL. It contains peripheral configurations for printers and some basic troubleshooting and diagnostic tips. At the end of the section you will find some useful information on different types of error codes and their definitions.

**Diagnostics & Troubleshooting** - Some minor corrections have been made to these section.

# LISA TECHNICAL PROCEDURES

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```

Proportional print. . ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz
                    1234567890!@#%&^*()-_+=[]{};:,.<>/?
PICA (80). . ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz
              1234567890!@#%&^*()-_+=[]{};:,.<>/?
ELITE (96). . ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz
              1234567890!@#%&^*()-_+=[]{};:,.<>/?
Compressed. . ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz
              1234567890!@#%&^*()-_+=[]{};:,.<>/?
SPECIAL (120). . ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz
                 1234567890!@#%&^*()-_+=[]{};:,.<>/?
SPECIAL (72). . ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz
                1234567890!@#%&^*()-_+=[]{};:,.<>/?
SPECIAL (144). . ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz
                 1234567890!@#%&^*()-_+=[]{};:,.<>/?

```

...Double width.

```

Proportional print. ABCDEFGHIJKLMNOPQRSTUVWXYZab#
PICA (80). . ABCDEFGHIJKLMNOPQRSTUVWXYZ a.#
ELITE (96). . ABCDEFGHIJKLMNOPQRSTUVWXYZ abcde f#
Compressed. . ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghi jk lmnopqrstuvwxy#
SPECIAL (120). . ABCDEFGHIJKLMNOPQR#
SPECIAL (72). . ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghi jk lmnopq#
SPECIAL (144). . ABCDEFGHIJKLMNOPQRSTUVWXYZ#

```

Proportional print with dots between characters set.

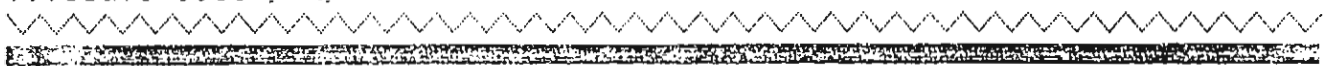
```

6 123456789:;<=>?@ABCDEFGHIJKLMN OPQRSTUVWXYZ[\]^_`
   abcdefghijklmnopqrstuvw xyz{ }~
5 123456789:;<=>?@ABCDEFGHIJKLMN OPQRSTUVWXYZ[\]^_`
   abcdefghijklmnopqrstuvw xyz{ }~
4 123456789:;<=>?@ABCDEFGHIJKLMN OPQRSTUVWXYZ[\]^_`
   abcdefghijklmnopqrstuvw xyz{ }~
3 123456789:;<=>?@ABCDEFGHIJKLMN OPQRSTUVWXYZ[\]^_`
   abcdefghijklmnopqrstuvw xyz{ }~
2 123456789:;<=>?@ABCDEFGHIJKLMN OPQRSTUVWXYZ[\]^_`
   abcdefghijklmnopqrstuvw xyz{ }~
1 123456789:;<=>?@ABCDEFGHIJKLMN OPQRSTUVWXYZ[\]^_`
   abcdefghijklmnopqrstuvw xyz{ }~

```

Bit image graphics test.

...Scale IIII



Bit Mapped Characters



Proportional #1 Bit Mapped Characters

PICA (80) Bit Mapped Characters

ELITE (96) Bit Mapped Characters

Compressed Bit Mapped Characters

SPECIAL (120) Bit Mapped Characters

SPECIAL (72) Bit Mapped Characters

Proportional #2 Bit Mapped Characters

Down-loaded character set test.

...Standard character set.

```

! " # $ % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ? @ A B C D E F G H I J K L M N O P
Q R S T U V W X Y Z [ \ ] ^ _ ` a b c d e f g h i j k l m n o p q r s t u v w x y z { | } ~

```

...Down-loaded character set, 1-to-8 bits.

```

! " # $ % & ' ( ) * + , - . / 0 1 2 3 4 5 6 7 8 9 : ; < = > ? @ A B C D E F G H I J K L M N O P
Q R S T U V W X Y Z [ \ ] ^ _ ` a b c d e f g h i j k l m n o p q r s t u v w x y z { | } ~

```

