*elite*series™
⊃ **DISC MAKERS**®

Instructions to get your Elite Series duplicator
set up, powered, and running with a Mac

Setting up the equipment

The Disc Makers Elite4™ duplicator is both Mac and PC compatible, engineered for easy setup and simple use. These instructions cover the setup and use of the Elite4 with a Macintosh computer that meets the minimum hardware and software requirements (refer to Meeting the setup requirements for details). To use the Elite4 with a PC, refer to the Getting Started Guide in the PC installation package.

The procedures in this guide explain how to connect the duplicator to a Mac, connect all components, prepare the printer for use, install the software, run the Discribe program for the first time, and perform a simple disc copy and print operation. Once you have completed the steps in this guide, refer to the Elite Series Mac User Guide for more information about using your duplicator.

Choosing a setup location

Set up the duplicator on a sturdy, vibration-free work surface away from sources of airborne contaminants and strong electromagnetic fields. The duplicator should

also be set up away from direct sunlight or very strong artificial light; the optical sensors inside the unit may not operate properly if ambient light levels are too high.

For consistent duplication results, whether attended or unattended, we strongly recommend the use of an Uninterruptible Power Supply (UPS) for isolating the duplication system and printer from the effects of AC power fluctuations or brief power outages. An AC power strip with line filtering and surge protection offers some protection if you do not use a UPS device.

Meeting the setup requirements

The Elite4 duplicator performs most effectively when used in combination with a dedicated, reasonably modern computer system that meets or exceeds the following requirements:

Computer hardware requirements	Operating system requirements
Minimum: Macintosh system powered by a 800GHz or faster PowerPC G5 processor. (Discribe does not currently run with the Intel* Core Solo or the Intel* Core Duo processor.)	Mac OS X Version 10.3.7 or higher
Minimum: 7200 rpm 40-Gigabyte hard drive with 70-percent free space	
512MB memory	
An available USB 2.0 port Note: Many early Macintosh computers only have USB 1.0 ports, which are too slow to operate with the Elite4 duplicator. Various USB 2.0 upgrade options are available for these systems; check with your Macintosh dealer for details.	

Note: If you are using Mac OS X 10.2 or later, the Mac OS Extended formatting (HFS Plus) minimizes the problems of fragmented file storage on disk drives. Under most conditions, optimizing the hard disk drive is not necessary to ensure efficient disc duplication with the Elite4. If you are running Mac OSX 10.3 Panther or above, a process known as Hot-File Adaptive-Clustering automatically defragments any discontinuous files.

Installing Input and Output Spindles

1   Locate the 3 Input and 1 Output rods. Screw in the input rods in the designated labeled area located in the front right of the base of the Elite system.. Screw in the Output rod to the right of the Input area.
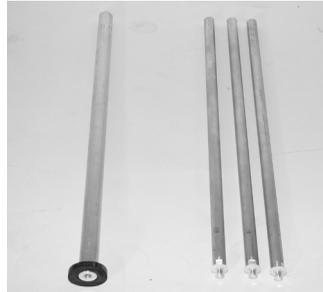
Connecting the duplicator to a computer

1   Power down the selected host computer.

2   Install the supplied FireWire card into your Macintosh system. Please refer to the manufacturers manual of your system for instructions on installing a PCI expansion
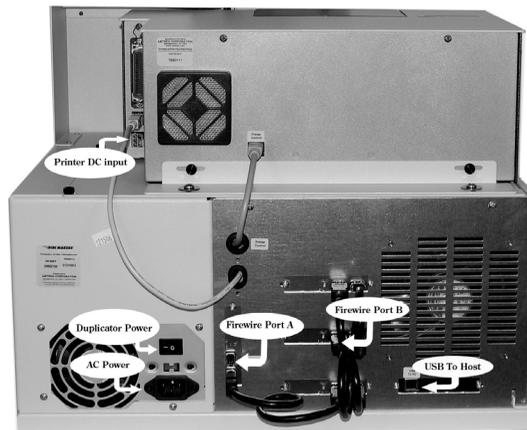
card..

3   Plug one of end of a USB cable into the connector labeled USB to PC on the back of the duplicator cabinet. Plug the other end of the cable into a USB 2.0 port on the selected Macintosh host computer.

2   Remove the FireWire cable connecting the middle module to the bottom referred to as FireWire Port B in the following illustration. Plug one end of the 1st FireWire cable into free FireWire port of your system and a the other end into port A as referred to in the illustration below. Plug the 2nd Fire Wire cable into the installed the newly installed card and the other end into the Elite using Port B.

Note: USB 1.0 interfaces cannot handle the data transfer rates required for disc duplication tasks. If your system has USB 1.0 ports, you must upgrade to USB 2.0 to use the duplicator.

Connecting the power and printer cables

Note: After connecting the power cables, as described in the following steps, do not power up the system until you have completed the procedure in the next section, titled Preparing the printer.

1 At the back of the duplicator cabinet, connect the AC power cord to the unit. Connect the other end to a UPS device, AC power strip, or AC wall outlet.

2 Connect the AC power adapter for the printer to the AC power cord. Plug one end into the printer DC input connector and the other end into a UPS device, AC power strip, or AC wall outlet.

3 Ensure that the cable that emerges from the middle of the duplicator cabinet and connects to the Printer Control port is securely attached.

4 Ensure that the remaining USB cable on the back of the cabinet is firmly attached to the USB connector on the printer enclosure (directly above the printer power input).

Preparing the printer

The disc printer included with the Elite4 duplicator features its own power supply and individual controls. Before using the printer or the duplicator, install the two print cartridges included in your installation package as described in the following sections.


Powering on the printer

1   Check to ensure that the AC adapter at the back of the printer is connected to the printer power input and a power source.

2   Press the upper button with the power symbol on the printer cabinet. The green and amber lights cycle for a moment as the printer starts.

3   Once the green light beside the printer power button is illuminated, follow the procedure in the next section to install the print cartridges.

### Installing printer cartridges

The Elite4 duplicator includes two print cartridges: one black and one color. Do not unwrap the cartridges until you are ready to load them into the printer. When you do unwrap them, handle them only by the edges and do not touch the ink nozzles or metal contacts. The cartridges are color coded for easy loading, as described in the following installation procedure.

1   Open the cover of the printer cabinet. The print cartridge assembly positions itself in the center of rail for easy access.

2   Open the latch on the left cartridge holder, labeled 27C, by pushing upward on it.

3   Unwrap the color cartridge (only Disc Maker 27C cartridge will function in the printer), remove the tape from the ink nozzles, and insert the cartridge into the holder. The cartridge should slide easily into place—you do not need to force it.

4   Lower the latch and snap it into place to secure the cartridge.
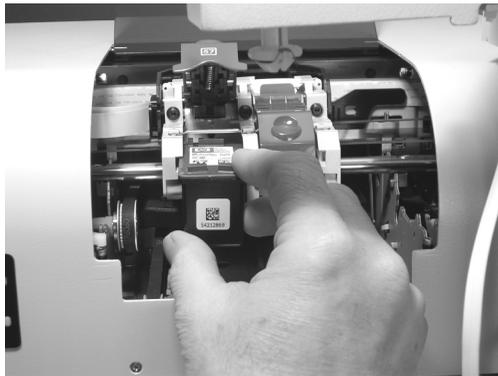
5   Repeat this same procedure for the black cartridge that inserts into the right cartridge holder (only Disc Maker 26B or 25P cartridges will function in the printer).

6   Close the printer cover when both cartridges are securely installed in their holders. The printer goes through a brief sequence to prepare the cartridges for printing.

Note: You can test the operation of the printer during the procedure described in the section titled Operating the duplicator.

Installing the software

The Macintosh software installation disc included with the Elite4 duplicator includes:

- Discribe Robot software, an application that manages the disc duplication and printing process.
- Disc Makers Autoloader Software, the drivers and utilities that operate the duplicator

To install the software

Complete the installation procedures as described in the following steps. You must have rights as administrator of the Mac to perform the installation.

1   Power on the Macintosh computer and insert the installation disc into the computer disc drive.

2   Double-click the Discribe for Disc Makers mpkg icon. The installer application appears.
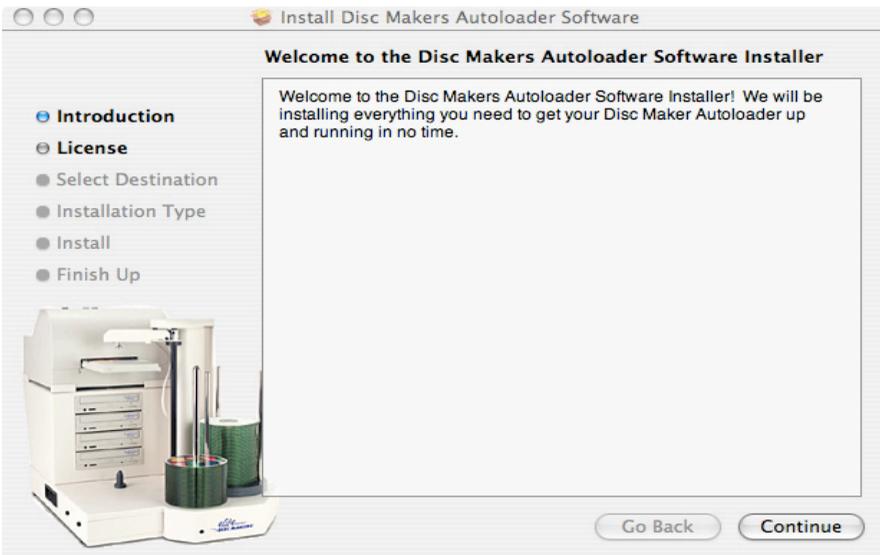
3   Click Continue to display the License terms. If you agree to the terms of the license agreement, click Agree and then Continue to advance to the Select Destination window.

4 Choose the volume on which the software will be installed. Click Continue to begin the installation on the designated volume.

5 Enter the administrator password when prompted.

6 Select the installation type—Custom or Easy Install. If you select Custom, check the components that you want to have installed. Click Install to continue.

7 To finish up the installation process, click Restart when prompted. While the computer is powered down and preparing to restart, start up the duplicator as described in the following steps.

Powering on the duplicator

1 With all cables securely connected to the duplicator, press the power switch on the back of the duplicator cabinet to the "1" position.

2 Press the power switch on the left side of the cabinet once. The system fan starts spinning and the green and amber activity lights illuminate on the face of the cabinet.

3 Press the power switch on the front of the printer cabinet to apply power to the printer.

4 If the Disc Makers Autoloader Software has been properly installed and the duplicator is connected to the computer and powered on, the equipment will be recognized by Discribe once the Mac restarts.

Adding the disc printer

The Disc Makers Autoloader Installation procedure copies the necessary print driver file for the disc printer to your Macintosh computer. To enable the printer for use with the Discribe application, you need to add the printer to your list of available printer selections.

1 From the Apple menu, select System Preferences. The System Preferences window appears.

2 Choose the Print & Fax icon from the available selections. The Print & Fax window appears.

3 Click the plus button (+) in the left column to display the Printer Browser window. New printer drivers are automatically shown in the browser, so you should see an option for "disc printer."

**4** Highlight the disc printer and click the Add button.
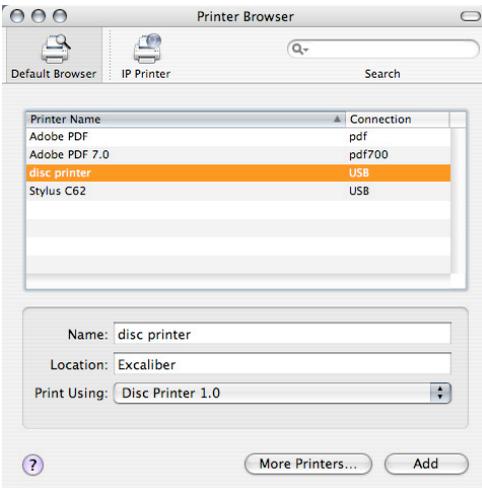
5 From the Print & Fax window, ensure that the disc printer appears in the list of printers and that the selection box for it is checked.
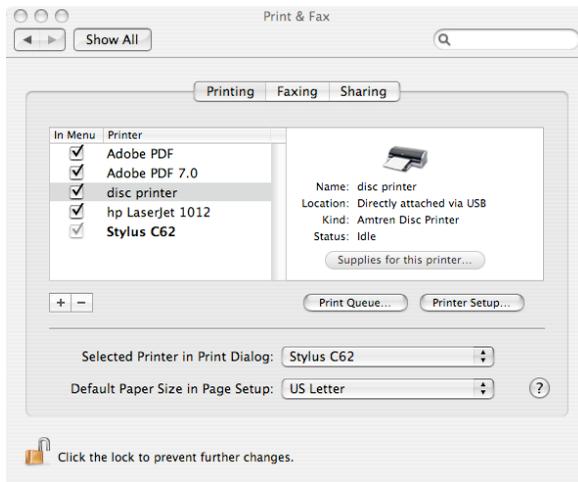
Copy a master with Discribe Robot

1   Select the Discribe Robot folder from the Applications options and start the Discribe Disc Makers program. The Quick Start window appears.
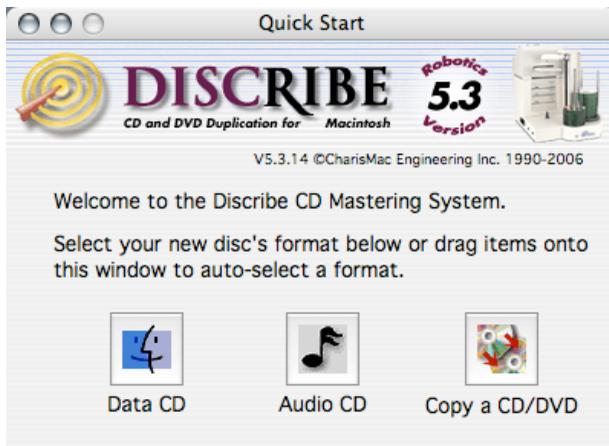
2   Click the Copy a CD/DVD button. Discribe displays the CD/DVD Copy dialog box.

3 Place a master disc—either a CD or DVD that is not copy protected—into one of the available disc drives in your system. Select the Source location for the master from the options displayed in the drop-down list. Discribe displays the size of the copy operation as soon as the program reads the disc.

4 Place a blank recordable disc in the input spindle. Click the Burn button to start the write operation. Discribe displays the Write Options window.
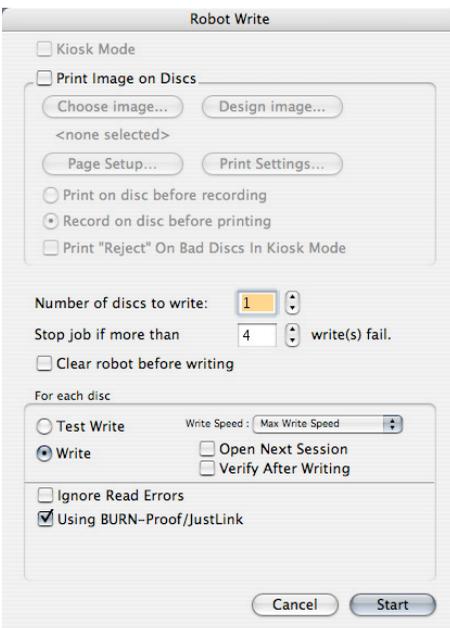
5 Accept the default options and click the Start button. Discribe uses the robot arm to select the blank disc from the input spindle and transfer it to a disc recorder. The program then displays the Write Progress window, indicating the percentage of completion as the copy operation progresses. When the write is complete, Discribe uses the robot arm to remove the disc from the recorder and transfer it to the output spindle.

6 Remove the disc from the output spindle and insert it in a Macintosh disc drive to examine the file contents. If the disc is readable on the computer, you have successfully recorded a data disc.

Note: In the future, you can verify the contents of the disc following a write by selecting the Verify After Write option in the Write Options window before starting the recording.

Testing the robotics

Discribe includes a test program that lets you ensure that the robotics are working properly. This program takes one or more discs from the input spindle, loads them sequentially into one of the duplicator's disc drives or the printer, and then unloads and transfers each disc to the output spindle. To test the robotics, follow these steps:

1 Place one or more discs in the input spindle stack of the duplicator.

2 From the Discribe Utilities menu, select Test Robotics. The primary Test Robotics window appears, identifying the Robot and the installed recorders.
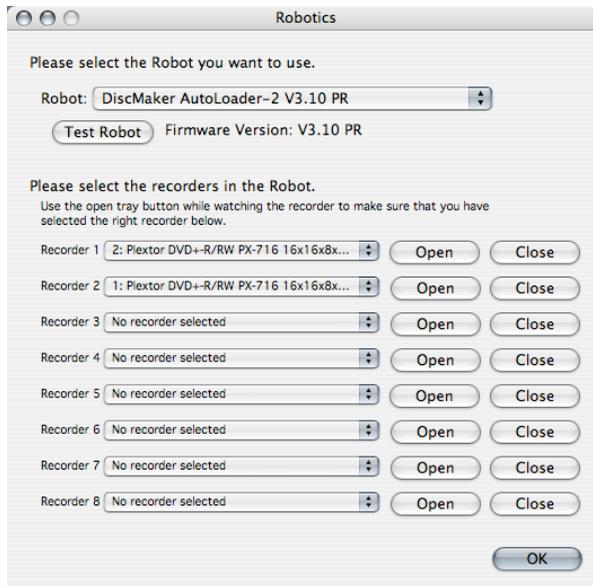
3 Click the Test Robot button. Discribe displays the Test Robotics windows.
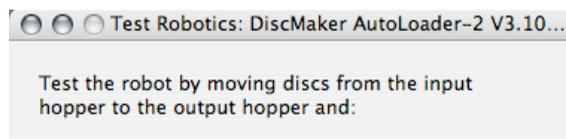
4 To test disc movement in and out of the recorders, ensure that the Move in and out of recorder option is selected. Set the Number of discs to move to 2. Click Start to initiate the test

5 Discribe proceeds to select and load one disc at a time from the input to a disc recorder. After a short time, each disc is extracted and placed on the output spindle. This test provides a good indication that communication between the computer and duplicator is working well and that the duplicator robotics are properly calibrated for operation.

Note: If you encounter any problems with the smooth operation of the robot arm or loading and unloading of discs, consult the section titled "Problem solving" at the end of this guide.

Printing a disc

Using the Discus program, users can import images created in popular graphics applications, such as Adobe Illustrator and Adobe Photoshop, as long as the images are saved in a Discribe-compatible file format (including BMP, TIFF, JPEG, and so on). Refer to the Discus online manual for additional details.

You can also print discs independently from disc duplication jobs, as described in the following procedure.

1 Create a suitable disc label image using any popular graphics application (such as Adobe Photoshop or Adobe Illustrator) or a label program (such as disclabel or Discus). Save the graphic image to a format compatible with Discribe (including JPEG, GIF, PNG, or PICT).

2 From the Discribe Utility menu, select Print Discs. The window that appears provides options for selecting an image to use on the label.
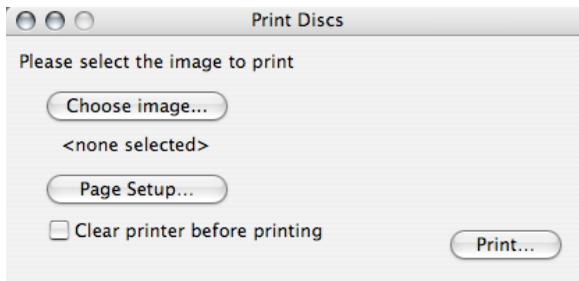
3 Click the Choose image button and select an appropriate disc label image from the file selection window that appears. Discribe limits your choices to valid graphics formats that are compatible with the program.

4 Click the Page Setup button. The window that appears lets you confirm the target

printer, disc printer, and choose the appropriate page size—in this case Disc.

```
                          Page Setup

        Settings:  [ Page Attributes              ⬍ ]

      Format for:  [ disc printer                 ⬍ ]
                     Amtren Disc Printer

      Paper Size:  [ Disc                          ⬍ ]
                     5.00 in x 4.86 in

     Orientation:  [↑👤]  [↑▸•]  [↑•◂]

          Scale:  [ 100 % ]

        (?)                      ( Cancel )  ( OK )
```
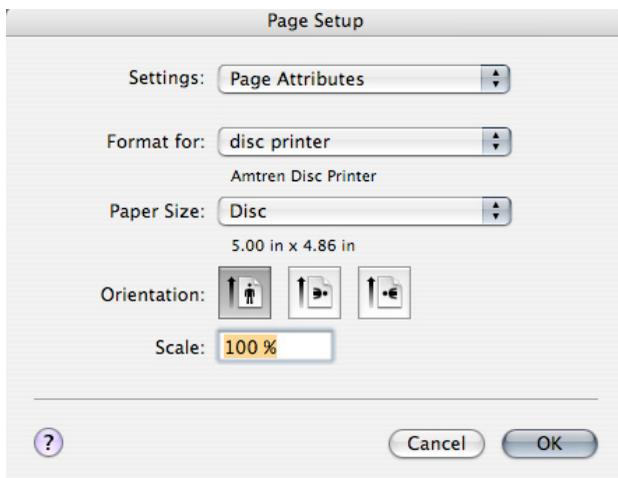
5   Place a disc with a printable label surface into the input bin of the duplicator. Click the Print button to perform the disc printing operation. Discribe uses the robot arm to load the printable disc into the printer and print the label. The program then extracts the disc and places it on the output spindle.

Note: If these operations or those in the previous section do not proceed as described, check the following Problem Solving section or the Troubleshooting FAQ in the User Guide for suggestions.

Combining duplication and printing

Discribe Robot software and the Disc Makers Elite Series duplicator can combine duplication and printing operations so that you can load a stack of blank, printable discs and produce a finished set of ready-to-ship discs.

If you have reached this point in the Elite Getting Started Guide, you've already accomplished all the tasks that are required to automate duplication and printing operations. To set up jobs for automated operation, refer to the Elite Series for Mac User Guide and consult the procedures on Automated Duplication.

Problem Solving

Refer to this list of common problems if you have trouble completing the procedures in this Mac Getting Started Guide. You can also consult the Troubleshooting FAQ in the Mac User Guide for additional information or use any of the support options listed at the end of this guide.

Solving common problems

The duplicator won't power on.

The Elite4 duplicator has two power switches—a master switch on the back of the cabinet next to the AC power cord input and a power switch on the left side of the cabinet. Ensure the master switch is in the On position (1) before pressing the power switch on the left side of the cabinet.

The duplicator drops discs or won't pick them up from the spindles or trays.

Sometimes the alignment of the duplicator pick arm is affected during shipping. To ensure that the pick arm is properly set up to move discs from point to point, refer to the section titled Using Utilities in the Elite Series for Mac User Guide.

The duplicator repeatedly rejects the blank discs that I'm trying to use in copy operations.

Make sure that you're using recordable CD discs with a CD master and recordable DVD discs with a DVD master. Also, the quality of the media and the selected recording speed can affect the rejection rate. Try using higher quality media (such as Disc Makers recordable discs) or setting the maximum recording speed lower during copy operations.

The duplicator robotics will not complete operations as directed and sometimes the movements of the pick arm are erratic.

The optical sensors contained in the duplicator can be affected by very strong light—either direct sunlight or strong artificial light. Try moving the unit to a location that is not as bright to see if this resolves the problem.

When I try to run Discribe, the Disc Makers Autoloader does not appear in the window for setting up write operations.

Discribe must be able to identify the Autoloader when the program starts. Check to make sure that all cables are properly connected and the autoloader is powered on. Then, restart your Mac. If this doesn't work, try reinstalling the software from the installation disc.

Getting additional help

Each Elite series duplicator includes a variety of technical support options.

- Many common problems can be resolved quickly by consulting the Troubleshooting FAQ in the Mac User Guide. Try this option first if you encounter difficulties.
- You can access details about software upgrades, updated product information, and other helpful owner information at www.discmakers.com/techsupport.
- For prompt technical support by e-mail, refer your queries to techsupport@discmakers.com.
- Toll-free technical support can be obtained from 9:00 am to 6:00 pm Eastern time Monday through Friday. Call 1-888-800-4041 for telephone support on any duplicator-related issues.

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