

# Standalone, fully automated CD/DVD Duplication System User Manual



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**All Pro Solutions** shall not be liable for direct, indirect, special, incidental or consequential damages arising from the use or inability to use this product or documentation. In particular, All Pro Solutions shall not have liability for any hardware used with this product, including the costs of repairing, replacing or recovering such hardware.

### DAMAGE

This shipment was packaged and delivered to the carrier with the utmost care to ensure safe delivery of goods. If your ZEUS system is damaged during shipment, please contact the freight carrier first, then contact your distributor or All Pro Solutions

# INCOMPLETE ORDERS\_\_\_\_

Check the shipment against the shipping papers thoroughly and immediately to ensure receivership of a full shipment. Do not discard packing materials or cases. Check out all possibilities before reporting a shortage or incomplete order.

# SAVE PACKAGING\_\_\_\_\_

You have to save your packaging materials so that if the need arises you can return your system for service. Sending a system to All Pro Solutions without the original packaging will void the warranty. This packaging was designed specifically for shipping your system. Other packaging may not be as suitable.

### IF YOUR SYSTEM REQUIRES SUPPORT

If your system requires servicing, you should first contact the place of purchase and request support or contact All Pro Solutions as follows:

Phone: (925) 447-8484

Email: <a href="mailto:techsupport@all-pro-sol.com">techsupport@all-pro-sol.com</a>

Before shipping any item to All Pro Solutions, first obtain a RMA (Return Material Authorization) Number from All Pro Solutions support. This number must be placed on the outside of the product packaging where it can be easily found; otherwise the item will be refused and returned at the sender's expense

# **Table Of Contents**

Quick Start	1
Getting Started	1
Manufacturer Recommendations	2
Mounting the Tower	2
Mounting the Printer	2
Operating Environment	4
Connecting Power	4
Drive and Printer Alignment	15
Overview	17
DVD Duplication Limitations	17
Temperature Warning	17
Maintenance	17
Disc Static and Sticky Media	17
Disc Placement	18
Robotic Platform	19
Keypad and Display	20
Operation	22
1. Copy Mode	22
2. Print Only Mode	22
3. Batch Mode	22
4. Image Manager	23
4.1. Disc Image Manager	
5. Erase Discs	
6. Compare Discs	
7. Reset To Input Bin 1	
8. Setup	
8.1. Printer Setup	27
8.2. Autoloader Setup	
8.4. License Key	
8.5. Operational Setup	31
8.6. Menu	32
9. Utilities	32
9.1. Hard Disk Utilities	
9.2. Firmware Utilities	
Appendix	
A - Synchronous and Asynchronous Modes	
B- Copy Mode - Flow Chart	
C- Print Only Mode - Flow Chart	39

# **Quick Start**

# Getting started

The removal of this product should be undertaken by at least 2 people because of its size and weight. Please ensure safe manual handling procedures are followed

Carefully remove your system from it's shipping box and verify that all parts are present. If there are missing or damaged parts contact *All Pro Solutions (APS)* or an authorized distributor immediately to correct any miss-packed or missing parts.

You should find the following packaged with your system:

- Autoloader AU4 (up to 330 disc capacity) with 2-drive tower mounted on it; Autoloader AU7 (up to 630 disc capacity) or AU9 (up to 900 disc capacity), depends on your model configuration
- > Tower populated with drives
- > Two Power cords (1 for autoloader and 1 for tower)
- > Serial Cable
- ➤ Tower Control Cable
- ➤ USB Cable (to be used with network option)
- ➤ User Manual
- > 5/64 hex head key (Allen wrench) and a bottle with oil to maintain shafts functionality
- ➤ Warranty card

For systems configured with printer, besides the above, you should find:

- Rimage, Teac, SpeedJet, or Pro III Printer
- Printer Plate (mounted on the bottom of printer)
- Printer Power Cord
- ➤ Printer Control Cable
- > Printer Parallel Cable

### NOTE:

If your system is damaged during shipment, please contact the freight carrier first, and then contact your distributor or All Pro Solutions.

You have to save your shipping materials so that if the need arises you can return your system for service. Sending a system to All Pro Solutions without the original packaging will void the warranty. This packaging was designed specifically for shipping your system. Other packaging may not be as suitable. If you have already

disposed of your packaging materials, you can receive a new set from All Pro Solutions for a fee.

# Manufacturer Recommendations

- <sup>©</sup> Before starting to operate your system, please read the User's Manual **entirely!**
- Place your system on a flat, steady surface in a climate controlled environment with regular office light (no bright light to reflect into the system's sensor), free of dirt, dust, excess humidity, excessive heat or electro-magnetic interference.
- Please fan the media before placing it into the Input Hopper and align it. Media has to slide easy on top of each other
- Do not use un-expensive media because it can generate problems: media sticks together and 2 or more discs can be loaded even if the picker it's designed to grab just one
- For audio duplication, please use good quality media and max 16x speed on CD
- Because your system is equipped with up 18x DVD drives, use only 52x certified CD and 18x certified DVD media.
- From time to time, the drives have to be cleaned using a CD Lens cleaning Kit or blowing air using a compressed gas duster.
- The 2 shafts used by the Picker to travel up and down should be oiled from time to time; use the multipurpose oil provided

# Mounting the tower

For all systems, the tower is provided with a tower plate mounted on the bottom. This plate will help in stabilizing the tower on the adapter (see Fig.1a for AU7 autoloaders or Fig.1b for AU9 autoloaders). For the system with 2 drives and printer, tower with drives is already mounted on the autoloader.

Make sure all thumbscrews are loose, place the tower on top of the adapter matching the marks (see Fig.2).

Do not tighten the thumbscrews until the drive alignment operation is performed. (see page 14)

# **Mounting the Printer**

This autoloader can be used with Rimage, SpeedJet, Teac, or Pro III printer and uses the same mounting system for either one of them.

Place your printer (with its own plate mounted on the bottom) on top of your tower. Do not tighten the screws until the printer alignment is made. Proceed with "Connecting Power" and "Drive and Printer Alignment" (see page 15).

When alignment is OK, please tighten in the same time, front left and front right thumbscrews # 3. Repeat this operation for rear left and rear right thumbscrews # 3.

Fig. 1a System unassembled – 4 drives and printer (AU7 autoloaders)

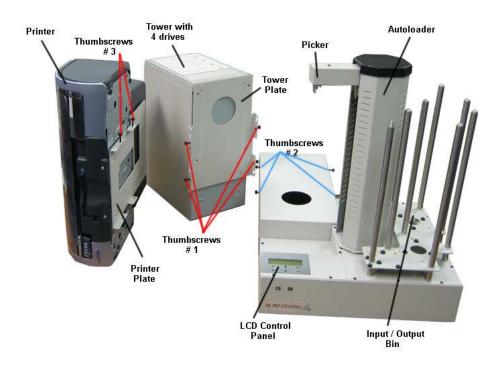


Fig. 1b System unassembled - 7 drives and printer (AU9 autoloaders)

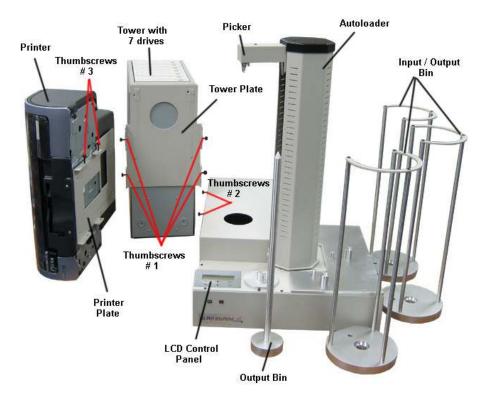
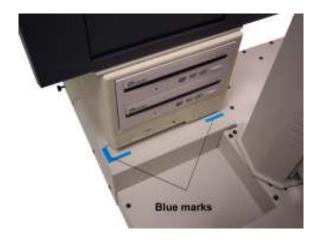


Fig. 2
Tower Alignment



# **Operating Environment**

Your APS System should be used in a climate-controlled environment free of dirt, dust, excess humidity, excessive heat or electro-magnetic interference. Your APS System should be placed on a sturdy level surface – away from sources of vibration and excessive lighting.

Allow at least four (4) inches of clearance around the sides and back of the system for ventilation.

# **Connecting power**

Plug one power cable into the tower system, one into the autoloader and another one into the printer. Plug each power cable into the proper power source and connect all the other cables as shown in:

- Fig 3b for system configured without a printer (page 5)
- Fig 4b or 4d for system configured with Rimage Prism Plus printer (page 6, 7)
- Fig 5b or 5d for system configured with Pro III printer (page 8, 9)
- Fig 6b or 6d or 6f for system configured with SpeedJet printer (page 10, 11, 12)
- Fig 7b or 7d for system configured with Teac P55 printer (page 13, 14)

Before powering on your system, please ensure the picker (see fig.1a/b, page 3) is in the top position.

Please power on your APS system in the following order:

- 1. autoloader
- 2. printer it usually turns on automatically when you turn on the autoloader if not, please turn it on
- 3. tower.

When the APS system is turned on it performs a series of self-tests and displays several status messages and finally the *Home Menu*. Once the *Home Menu* is displayed, your APS system is ready for use. Proceed with *Drive and Printer Alignment* on page 15.

# Fig. 3a

# System configured with 8 drives



Fig. 3b
System configured with 8 drives
(back-view cables)

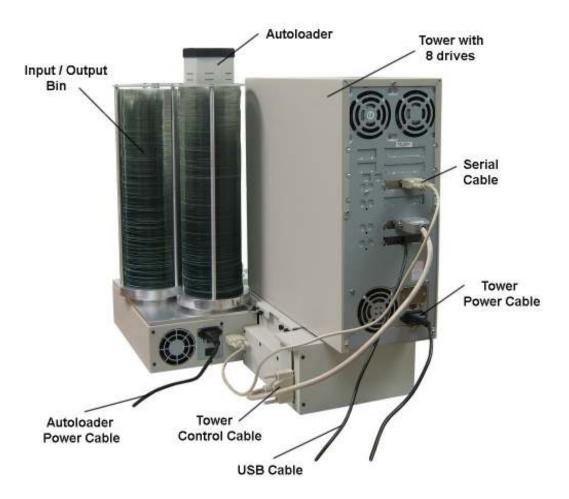


Fig. 4a System configured with 4 drives and Rimage Prism Plus printer



Fig. 4b
System configured with 4 drives and Rimage Prism Plus printer (back view – cables)

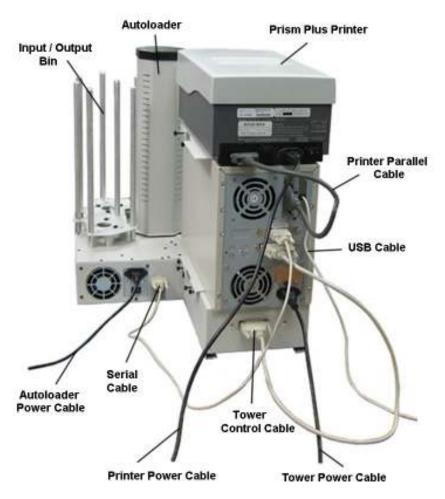


Fig. 4c System configured with 7 drives and Rimage printer



Fig. 4d System configured with 7 drives and Rimage Prism Plus printer (back view – cables)

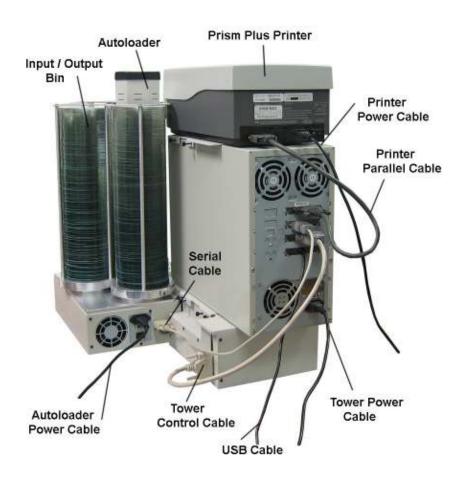


Fig. 5a System configured with 4 drives and Pro III printer



Fig. 5b System configured with 4 drives and Pro III printer

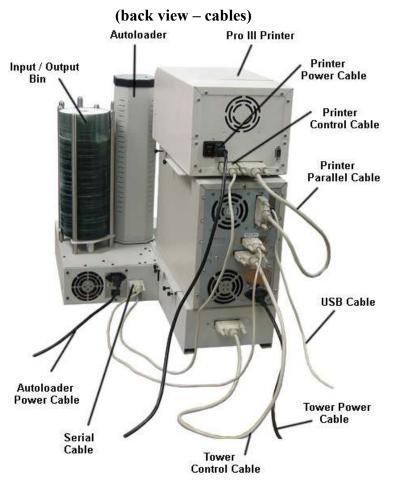


Fig. 5c System configured with 7 drives and Pro III printer



Fig. 5d System configured with 7 drives and Pro III printer (back view – cables)

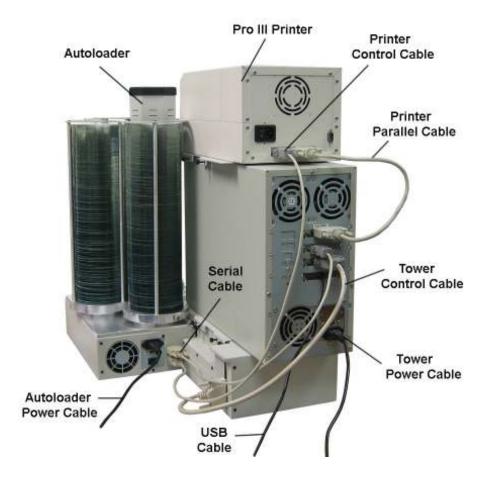


Fig. 6a System configured with 2drives and SpeedJet printer



Fig. 6b System configured with 2 drives and SpeedJet printer (back-view cables)

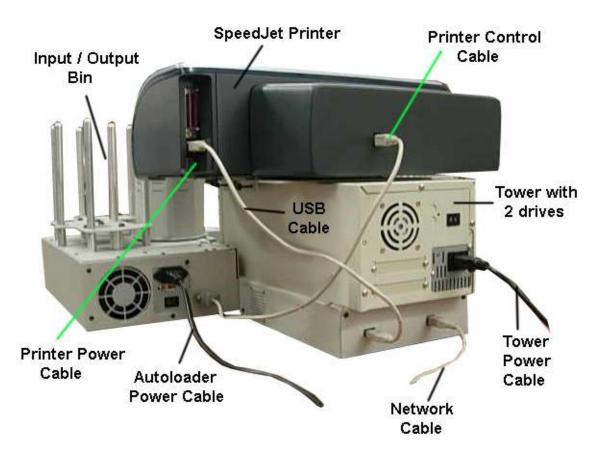


Fig. 6c System configured with 4drives and SpeedJet printer



Fig. 6d System configured with 4 drives and SpeedJet printer (back-view cables)

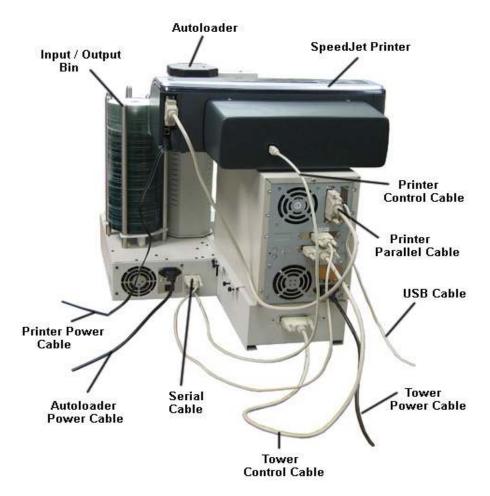


Fig. 6e System configured with 7 drives and SpeedJet printer



Fig. 6f System configured with 7 drives and SpeedJet printer (back view – cables)

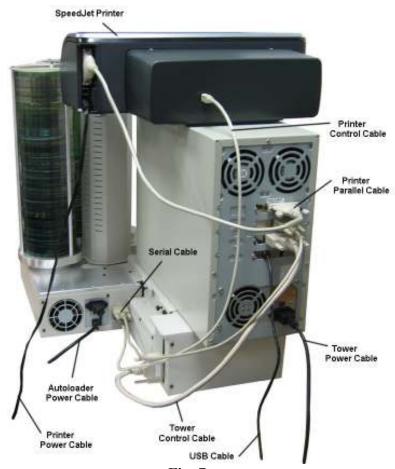


Fig. 7a System configured with 4 drives and Teac P55 printer



Fig. 7b System configured with 4 drives and Teac P55 printer

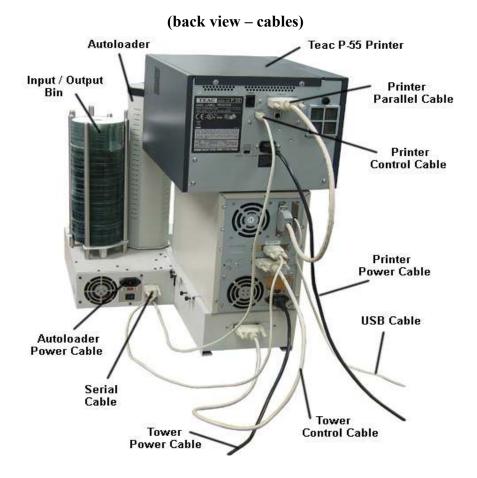
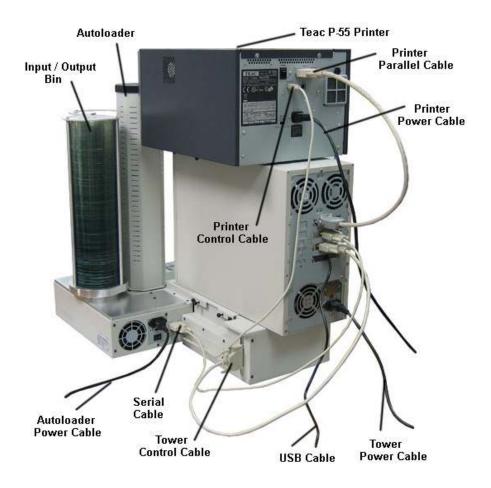


Fig. 7c System configured with 7 drives and Teac P55 printer



Fig. 7d System configured with 7 drives and Teac P55 printer (back view – cables)



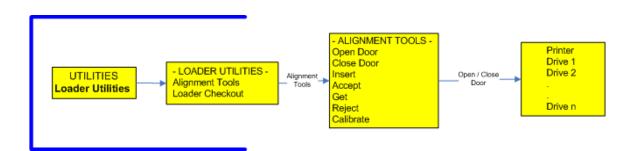
# **Drive and Printer alignment**

# **Drive Alignment**

After the power is turned on the system goes through a series of self-tests and the Home Menu will appear on the LCD.

Place two discs into Input Bin # 1 (alignment should be performed on the top and bottom drive)

Scroll down the Home Menu using the down arrow until *Utilities* appears. Press Enter. Scroll down until *Loader Utilities* appears. Press Enter. Once more, scroll down until *Loader Utilities* appears. Press Enter.



Choose *Alignment Tools* and press Enter again.

Select Open Door, press ENTER, select Drive 1 and press ENTER again.

The tray for drive # 1 will open; select *Insert* – press ENTER - the autoloader will pick 1 disc from Input Bin # 1 and load it into drive tray # 1 and stops. The operator must now look at the position of the disc in the drive to determine if any alignment is needed. If this operation looks okay, press *Accept*.

Autoloader will take the disc from drive and place it in the Output Bin.

If the system needs alignment, press *Get*. The arm will grab the disc from drive, goes up and waits for drive adjustment. Move the tower left and right or back and forth until position of disc over the drive tray looks OK and press *Insert* again for the arm to come down and place the disc in the drive tray. If it's OK, press *Accept*. Autoloader will take the disc from drive and place it in the Output Bin.

# Follow the above steps for bottom

Tight gently thumbscrews # 1 on both sides until they touch the adapter and then tight thumbscrews # 2 (they consolidate the tower on the adapter – see Fig.10 below)



Fig. 10 - Side View

# Printer Alignment

If your system is configured with a printer, repeat the above steps using the printer (select Printer instead of Drive 1)

Once printer alignment is OK, please tight, in the same time, front left and front right thumbscrews # 3 (located on the printer plate – see Fig. 1a/b – same for all printers).

Repeat this operation for rear left and rear right thumbscrews # 3.

# **Overview**

Before you start using this system, please read the following to ensure proper operation:

# **DVD Duplication Limitations**

The DVD system will not copy any DVDs that have Copy Protection encoded in the content. Typically, most DVDs you purchase or rent from a store, contain Copy Protection.

In addition to the copy protection limitation, the autoloader will only copy a DVD5 format (4.7 GB) disc to another DVD5 format recordable DVD media. If your autoloader has double layer/dual layer capability, you can copy a DVD9 format (8.5 GB) disc to another DVD9 format recordable DVD media, but you cannot duplicate a DVD5 format disc on to a DVD9 format recordable media or vice versa.

# Temperature Warning

If the system was stored in a location where the temperature dropped below 32° F (0° C) within the past 24 hours, leave the autoloader in a warm room with temperatures at least 65° F (19° C) for four hours prior to powering it on for the first time. Failure to do so may cause irreparable harm and prevent the autoloader from functioning.

### Maintenance

It is very important to operate and keep the autoloader in a dust free, clean environment since dust is the number one killer of CD/DVD recording devices. Failure to do so can severely damage your autoloader. We strongly suggest that you constantly use an Air Duster (Canned Air) to clear off any dust on the surface of the autoloader.

**Note:** Do not try to use an Air Duster to clean the autoloader while the writer trays are open. In doing so, you may inadvertently blow dust into the recording device and damage it.

# Disc Static and Sticky Media Issues

The most common problems when using an autoloader are the disc static and sticky media issues. These static charge problems cause multiple discs to stick together, resulting in improper operation and more severely, can shock the robotic arm while loading a disc that causes the system freeze. Even though the autoloader has a sticky media separator function to prevent the sticky media, but you should still follow these steps to prevent sticky media from disrupting your operation and protect your system from disc static charge.

This issue is most commonly seen when you buy a 100 pack of blank discs and insert them into the autoloader without any treatment. If you have experienced this kind of problem, please do the following to remove the adhesive static between the discs:

Separate the blank discs before you place them into the autoloader's bins and align them using the Output Bin rod. Separating them will greatly reduce the static between discs. See pictures below:

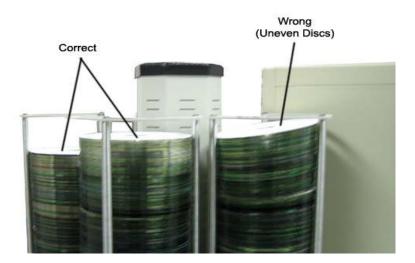




If this doesn't achieve the desired outcome, use an air duster (canned air) to blow air around the circular edge of the blank discs. This process reduces the static between the discs up to 90%. The amount of air to use depends on factors specific to your environment.

# Disc Placement Issue

Another common problem when using an autoloader is the placement of media into the bins. Placing the media into the bins properly can avoid possible picking errors when operating the autoloader. Even though the autoloader is designed with certain tolerance adjustments to prevent mishandling by the picking arm, failures may still arise if the bins are not loaded correctly. All media loaded into the bins should be flat and not slanted at an angle to ensure the picking arm can securely grab the disc. Be sure not to load too many discs into the bins as well as this may cause errors in placement and loading. The figure below shows the proper and incorrect disc placements when loading media into the bins



# The Robotic Platform

The robotic arm picks blank discs from Input Bin # 1 first, and places the successful copies into the Output Bin. Once Input Bin # 1 is empty, it picks blank discs from Input Bin # 2, and places the successful copies into Input Bin # 1 which becomes Output Bin # 2. It then picks from Input Bin # 3 and places into Input Bin # 2 which becomes Output Bin # 3 and so on. Reject discs are placed on to the deck below the drive trays. (Throughout this manual, this area is also referred as "Reject Area").

Fig. 3
Input / Output Bin Placement



# Keypad and Display

ZEUS system works with a 4-line by 20-character LCD display and a keypad consisting of 6 keys that allow you to navigate through the menu system.

The functions for these buttons are shown below:

•	<b>Up Arrow Key:</b> while navigating a menu this key moves the cursor to the next menu option up. If entering an image name or a quantity, this key increments the character at the cursor to the next character or number.
•	<b>Down Arrow Key:</b> while navigating a menu this key moves the cursor to the next menu option down. If entering an image name or a quantity, this key decrements the next character or number.
4	<b>Left Arrow Key:</b> while navigating a menu this key moves one menu level back. If entering a character or number, this key moves the cursor one character to the left.
<b>→</b>	<b>Right Arrow Key:</b> while navigating a menu this key selects a menu level or a setup option. If entering a character or number, this key moves the cursor one character to the right.
START	<b>Start Key:</b> When entering an image name or quantity, this key accepts the name or quantity being entered.



**Stop Key:** while navigating through menus, this key returns to the home menu. If a job is in progress, this key cancels the current job.

# Changing the Display Contrast

To change the contrast level for the display, do the following:

- 1. Power on Publisher and wait for about 5 seconds
- 2. Press and hold the START key. After about 2 seconds you will hear a beep. Continue pressing the START key and go to step 3.
- 3. To set the contrast up, press the UP key a few times until you can read the display. To set the contrast down, press the DOWN key a few times until you can read the display.
- 4. When you are done changing the display contrast, release the START key.

# **Entering Names and Quantities**

ZEUS commands allow you to enter quantities and name the hard drive partition with an alphanumeric label up to 12 characters long. All available character locations are displayed between brackets as shown below:



To enter names and quantities, use the  $\uparrow/\Psi$  keys to cycle through the alphabet and numbers. Use the  $\rightarrow$  and  $\leftarrow$  keys to move the cursor to the desired character location. When entry is complete, press START to accept the name or quantity.

# **Operation**

This chapter provides detailed operating instructions for your APS system which has many options and features designed to make it more productive and easier to use. Pease read through this chapter carefully to become more familiar and take advantage of all the features of your system.

# 1. Copy Mode

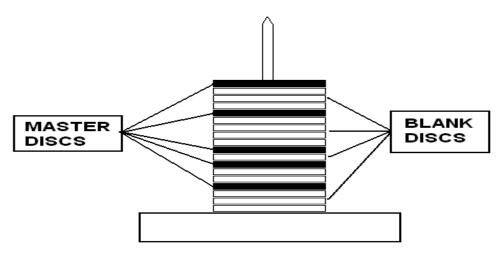
Use this option to make copies and/or print media. A wizard will guide you in selecting an image or reading a new image to be copied. If a printer is available the wizard will provide you the option to print as well. Appendix B provides a flow chart of copy mode operations (page 37)

# 2. Print Only Mode

Use this option to print on media. A wizard will guide you in selecting an image or reading a new image to be printed. Appendix C provides a flow chart of print mode operations (page 39).

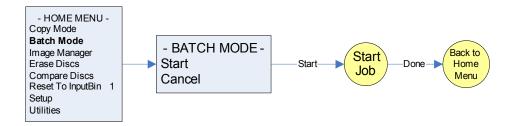
# 3. Batch Mode

Batch mode allows the user to make copies from multiple master images without specifying a quantity. Master and blank discs are loaded together on the input spindle. The number of copies is dictated by the number of blank discs placed between masters. Batch mode is ideal for making a small number of copies of multiple master images.



Batch mode works by loading the discs on the input spindle of the duplication equipment optical drives. When all optical drives are loaded with a disc, the duplication system detects which drives contain a master image and which blank media. The first master image is then loaded to a temporary location on the hard drive; thereafter, all blank discs following the master are written with the image. Once the blank discs are written, the next master is loaded to the hard drive and used to write the subsequent blank discs. When all blank discs are written, all discs are unloaded from the optical drives. This process continues until the duplication equipment detects that the input bin is empty.

To start Batch mode, select the "Start" option from the BATCH MODE menu.



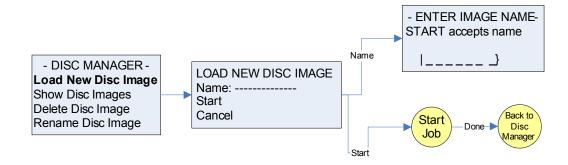
# 4. Image Manager

Image manager is used to maintain disc and print images files stored on the duplication equipment's hard drive.

# 4.1. Disc Image Manager

# Load Disc Images

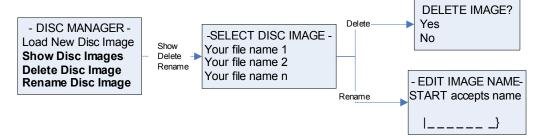
Use this option to load and save a new CD or DVD disc image to the hard drive.



*Name:* Select this option to provide a name for the new disc image. See the "Entering Names and Quantities" section in Chapter 1.

*Start:* Select this option to start loading the new image. Make sure to place the master discs on top of the input spindle.

Cancel: Select this option to cancel the operation and go back to the "Disc Manager" menu.



# Show Disc Images

Select this option to show a list of all disc images (CD and DVD) saved on the hard drive.

# Delete Disc Images

Select this option to delete a disc image saved on the hard drive. You select the disc image to be deleted from a list and are prompted to confirm that you want to delete the image.

# Rename Image

Select this option to rename a disc image saved on the hard drive. You select the disc image to be renamed from a list and are prompted to enter a new name. See the "Entering Names and Quantities" section in Chapter 1.

# 4.2. Print Image Manager

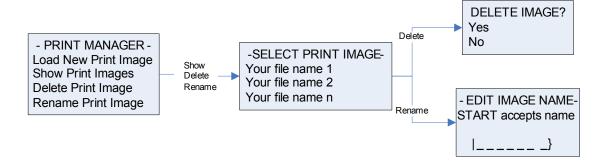
# Load New Print Images

This option is used to load and save a new print image to the hard drive.



*Start:* Select this option to start loading the new image. Be sure to place the print image disc on top of the input spindle.

Cancel: Select this option to cancel the operation and go back to the "Print Manager" menu.



# **Show Print Images**

Select this option to show a list of all print images saved on the hard drive.

# Delete Print Images

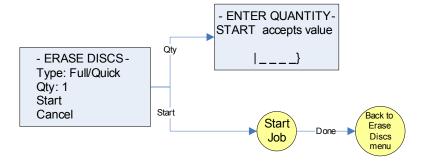
Select this option to delete a print image saved on the hard drive. You select the print image to be deleted from a list and are prompted to confirm that you want to delete the print image.

# Rename Print Image

Select this option to rename a print image saved on the hard drive. You select the print image to be renamed from a list and are prompted to enter a new name. See the "Entering Names and Quantities" section in Chapter 1.

# 5. Erase Discs

This function is used to erase data from CD-RW and DVD-RW discs.



# **Type**

This option displays the type of erase to be performed, quick (default option) or full. The erase type can be changed from the "Setup->Optical drive" menu only. Refer to the "Setup" section.

# **Qty**

Select this option to enter the number of discs to erase. See the "Entering Names and Quantities" section in Chapter 1.

### Start

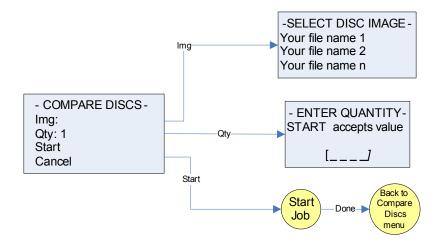
Select this option to start the erase operation. Be sure to place re-writable media on the input spindle.

### Cancel

Select this option to cancel the operation and go back to the "Home Menu."

# 6. Compare Discs

This function is used to compare copies, byte-per-byte, against a master disc image in order to ensure that the copies are equal to the master image. Note that for copies containing audio tracks, only a readability test is performed since audio tracks do no have ECC (error correction codes).



Img

Selecting this option allows you to choose the master disc image saved on the hard drive you wish to compare.

# **Qty**

Select this option to enter the number of discs to compare. See the "Entering Names and Quantities" section in Chapter 1.

# Start

Select this option to start the compare operation. Be sure to place your discs to be compared on the input spindle.

### Cancel

Select this option to cancel the operation and go back to the "Home Menu."

# 7. Reset To Input Bin 1

Do not use this menu option.

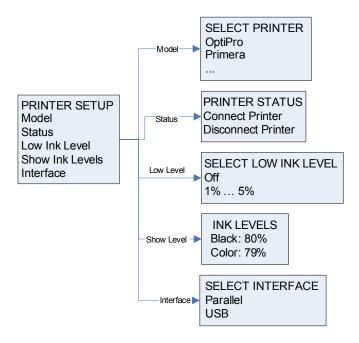
# 8. Setup

These menus are used to select various options available on the ZEUS system:

- SETUP -Printer Autoloader Optical Drive License Key Operation Menu

# 8.1. Printer Setup

These menu options allow the user to view and change the current printer settings.



### Model

Select this option to change the printer model being used.

# Status

Select this option to change the printer status to connected or disconnected.

# Low Ink Level

Select this option to change the Low Ink Level. The Low Ink Level is an indicator that allows Publisher to notify the user when the printer is low on ink. After each disc is printed, the ink levels from the printer are read and compared against the Low Ink Level setting.

### **Show Ink Levels**

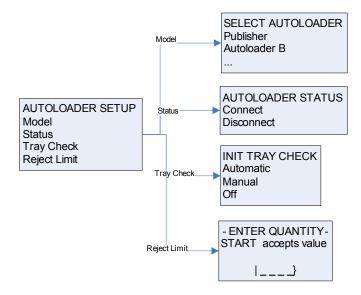
Select this option to display the current ink level of the printer.

# Interface

Select this option to change the printer interface to Parallel or USB.

# 8.2. Autoloader Setup

These menu options allow the user to view and change the current autoloader settings.



### Model

Select this option to change the autoloader model being used.

### Status

Select this option to change the status of the autoloader (Connected or Disconnected).

# **Tray Check**

Select this option to change the tray check option (Automatic, Manual, or Off). During boot up Publisher can check for discs left on optical drives from previous sessions and can remove the discs found in order for all optical drives to be clear and ready to be used. The factory default setting is Off.

Automatic: The system opens all drive trays and the robotics physically check each tray for media. If media is present, the system moves the media to the REJECT bin.

*Manual:* The system opens all drive trays and the display prompts the user to perform a visual inspection and remove any media present. The user can press any key to continue to the HOME menu.

Off: The system does not check for media left in drive trays. The user takes full responsibility to ensure all media is removed from all drive trays prior to power-on initialization.

# **Reject Limit**

Use this option to change the reject limit. The reject limit is an indicator that allows Publisher to notify the user when the reject bin is full. Publisher keeps a count that increases when a disc is placed in the reject bin. If the count reaches the reject limit, the Publisher notifies the user to remove any media from the output bin before continuing.

# 8.3. Optical Drive Setup

These menu options allow the user to view and change the current optical drive settings.

OPTICAL DRIVE SETUP
Drive Selection
Burn: Y/N
Compare Master: Y/N
Compare Copy. Y/N
Read CD Speed:
Read DVD Seed:
Burn CD Speed:
Burn DVD Speed:
Copy ISRC: Y/N
Erase Type: Quick/Full

### **Drive Selection**

Select this option to disable or enable a particular optical drive. This option is commonly used to disable a faulty optical drive.

### Burn

Select this option to switch between burn or simulate mode. If this option is set to "Yes," the system is in burn mode and blank discs are written. On the other hand, if the option is set to "No," the system is in simulation mode and blank discs are not actually written.

# **Compare Master**

Select this option when you load a new disc image onto the hard drive and wish to compare the image written to the hard drive with the master disc. If this option is set to "Yes," the system compares byte-per-byte, the data on the master disc image that has been loaded to the hard drive against the data on the master disc before it is unloaded from the drive. If this option is set to "No," a new disc image is not compared against the hard drive. The default setting is "No."

# Compare Copy

Select this option to compare copies against the master image saved on the hard drive before copies are unloaded from the optical drives. If this option is set to "Yes," copies are compared against the master image. The default setting is "No."

# Read CD Speed

Select this option to change the speed at which a new CD disc image is loaded to the hard drive. The default setting is maximum speed, i.e., the fastest speed that the optical drive is capable of achieving.

# Read DVD Speed

Select this option to change the speed at which a new DVD disc image is loaded to the hard drive. The default setting is maximum speed, i.e., the fastest speed of the optical drive.

# **Burn CD Speed**

Select this option to change the speed at which CD images are written to blank discs. The default setting is maximum speed, i.e., the fastest speed of the optical drive.

# **Burn DVD Speed**

Select this option to change the speed at which DVD images are written to blank discs. The default setting is maximum speed, i.e., the fastest speed of the optical drive.

# **Copy ISRC**

Select this option to copy ISRC codes. If this option is set to "Yes," ISRC codes from audio tracks are copied when a new disc image is loaded to the hard drive. If this option is set to "No," ISRC codes from audio tracks are not copied. The default setting is "No."

# **Erase Type**

Select this option to set the type of erase method used to erase re-rewritable discs. The erase type can be set to "Quick or Full"

Quick: Erases only references to existing data and does not physically erase the full disc. Even though data is physically available, the disc appears to be empty to an optical drive. Quick erase takes between one and two minutes.

*Full*: Physically erases the full disc and data is no longer available. Full erase can take a few minutes depending on the type of disc being erased.

# 8.4. License Key

These options allow adding, removing and viewing license keys. License keys enable different functionality for Publisher and can be purchased separately.

LICENSE KEY SETUP Add License Remove License View License

### Add

Select this option to add a new license key. Be sure to place the disc containing the license key on top of the input spindle.

### Remove

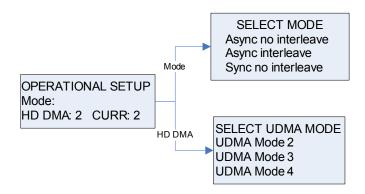
Select this option to remove an existing license key.

# View

Select this option to view a list of existing license keys.

# 8.5. Operational Setup

These options allow the user to view and change Publisher operating modes.



### Mode

Select this option to change the operation mode. The default setting is "Sync no interleave" mode. See Appendix A for details on each of the available operating modes.

# HD DMA

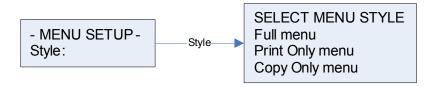
Select this option to change the speed at which the hard drive operates. Note: this is an advanced setting and we do not recommend that you change it.

UDMA mode 2: maximum HD transfer rate is 33.3 Mbps. UDMA mode 3: maximum HD transfer rate is 44.4 Mbps UDMA mode 4: maximum HD transfer rate is 66.7 Mbps

# 8.6. Menu

# Style

This menu option allows you to change the menu style used by Publisher. The default menu style is "Full menu."



Full Menu: Targets a system with optical drives and a printer.

Print Only Menu: Targets a system with a printer only.

Copy Only Menu: Targets a system with optical drives only.

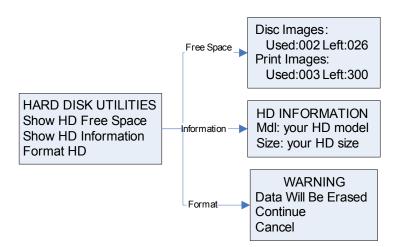
# 9. Utilities

Utilities is composed of submenus that help retrieve information about the system, provide aids for the autoloader, and allow the user to update firmware.

UTILITIES
Hard Disk Utilities
Firmware Utilities
Loader Utilities
About Hardware
About Firmware

# 9.1. Hard Disk Utilities

These menu options allow the user to view hard drive information and format the hard drive.



# **Show HD Space**

Select this option to display the used and available hard drive space for disc and print images.

# **Show HD Information**

Select this option to display the model and size of the hard drive.

# Format HD

Select this option to format the hard drive. You are prompted to continue or cancel before formatting begins.

# 9.2. Firmware Utilities

This utility allows updating the duplication equipment firmware using a CD or DVD disc that contains the firmware file.

FIRMWARE UTILITIES Load System F/W

# Load System F/W

Select this option to update the duplication equipment firmware. Be sure to place the disc containing the firmware on top of the input spindle.

# 9.3. About Hardware

Select this option to display information about the duplication equipment hardware.

ABOUT HARDWARE
Platform:
Serial:
Revision:
....

# 9.4. About Firmware

Select this option to display information about the firmware installed in the duplication equipment.

ABOUT FIRMWARE Version: Build: Dev:

# Appendix A — Synchronous and Asynchronous Modes

# **Synchronous Duplication**

In synchronous duplication, Publisher uses all of the optical drives to burn the same disc image. In this mode, burning starts after all optical drives are loaded with blank media. Media is unloaded from the optical drives after the last drive finishes its burn.

# **Asynchronous Duplication**

In asynchronous duplication, Publisher uses each optical drive to burn independently, so each optical drive can be burning a different disc image. As an optical drive is loaded with blank media, it starts burning without waiting for other drives to have media loaded. A job request can start while previous jobs are in progress. There are two user-selectable ways that media can be unloaded to the output stack:

**Interleaved output:** In this mode, an optical drive does not wait for other drives to finish burning before unloading its media. An optical drive unloads its media as soon as burning is complete which *may mix discs* from different jobs in the output stack.

**Non-interleaved output:** In this mode, the system *does not mix* discs from different jobs in the output stack. To achieve a non-interleaved output a drive may have to wait for other drives to unload media first.

A printer is required for Asynchronous Duplication. If Publisher does not have a printer available, it defaults to non-interleaved output. If a job does not have a print image specified, Publisher automatically uses non-interleaved output for the specific job. In both cases mixing of discs from different jobs in the output stack is prevented.

# **About Printing**

For printing on a disc the print image needs to spool/transfer the print image to the printer's memory. Once the print image is stored in the printer's memory, no spooling is necessary until a new print image is requested for printing.

High quality printers require a long time to spool/transfer the print image for the first time to the printer's memory like the TEAC P-55. For this reason, it is recommended

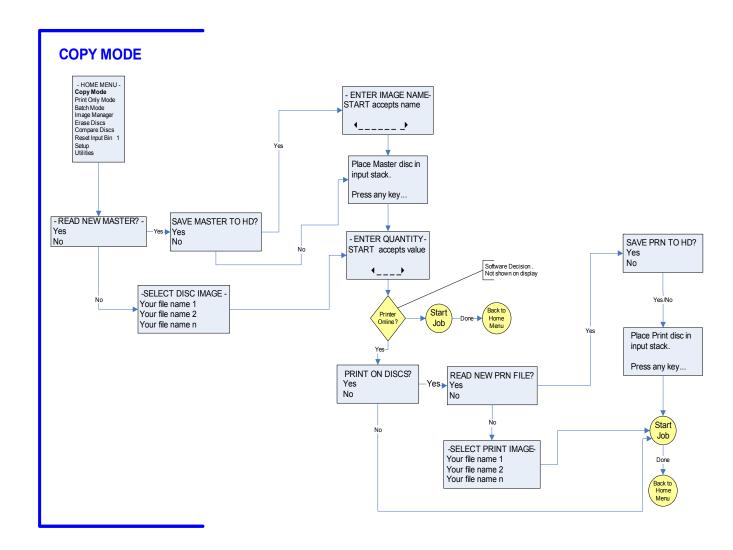
that you use "non-interleaved mode" when using printers that require a long time for spooling images.

**NOTE:** Interleaved and non-interleaved output modes are selectable options under the Publisher "Setup" menu.

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# Appendix B - Copy Mode

Copy mode wizard is shown in the diagram below.



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# Appendix C - Print Only Mode

Print only mode is shown in the diagram below:

