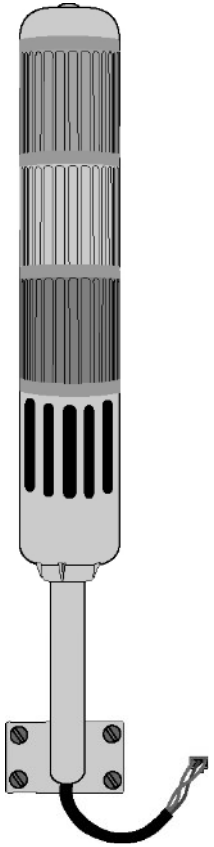
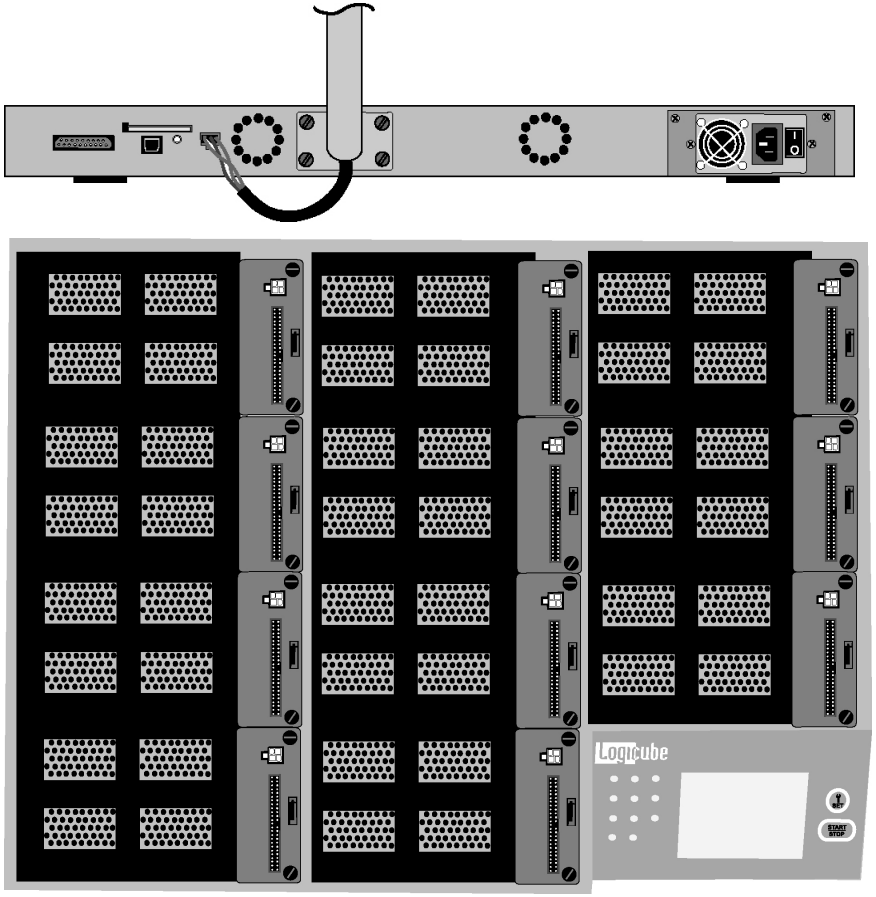
LOGICUBE TRAINING:

Omniclone - Xi Series





Logicube®

USING THIS TRAINING MANUAL

This manual is made up of 7 chapters:

1. Introduction
2. Getting Started (Fast Start)
3. Cloning Modes and Settings
4. Omnidiagnostics
5. Database Functions
6. Other Features
7. User Replaceable Hardware

1. INTRODUCTION TO THE OMNICLONE – Xi SERIES

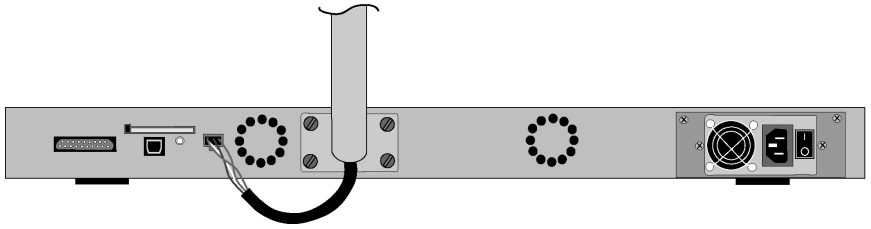
The Omniclone-Xi series is designed to meet the needs of high-volume hard drive duplication facilities. It is an ideal solution for the following scenarios:

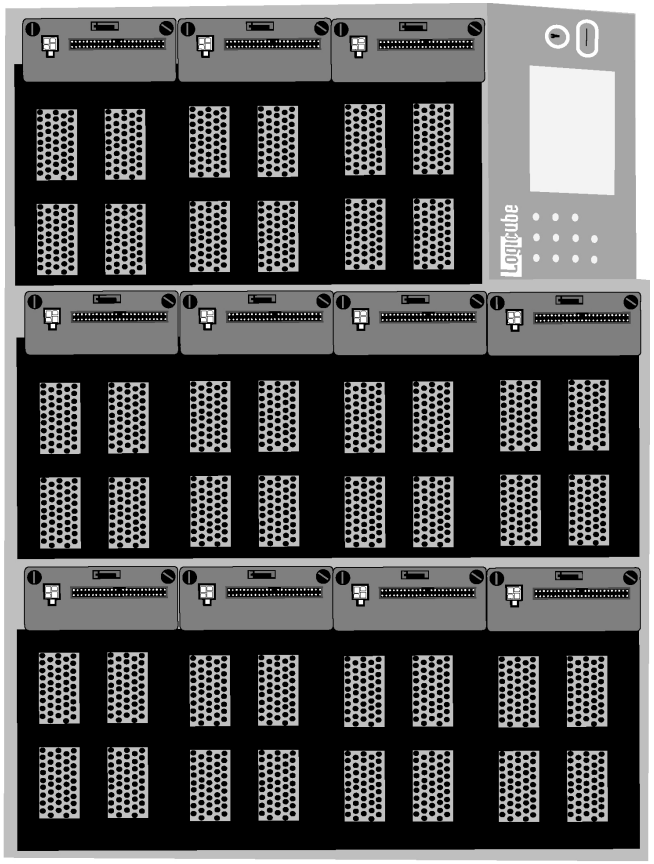
- High Volume Roll-outs of workstations for a large company, university or other facility.
- Production Line needs for manufactured products that require hard disk drives, such as Digital Video Recorders or GPS Devices.
- Computer Manufacturers that build a large quantity of PC's.

The Omniclone Xi™ is designed to be easy enough to be used by a novice, yet offers many professional features that are not available anywhere else.

SYSTEM FEATURES - OMNICLONE 10Xi

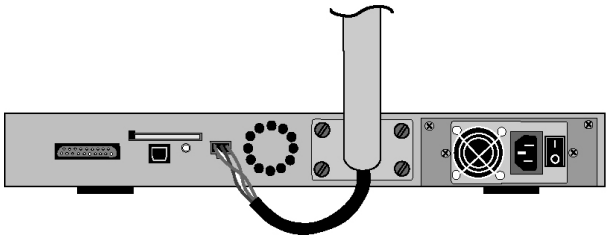
- Clones from one Master to up to 10 Target drives.
- Clones any IDE, EIDE or Serial ATA Drive.
- Data transfer rates in excess of 3.5 GB/min.
- Master and Target drives can be of different size, make and model.
- Easy to read graphical interface.
- Calibrated touch screen for fast input of settings and data.
- User-replaceable Drive Stations
- User-replaceable Internal Power Supply.

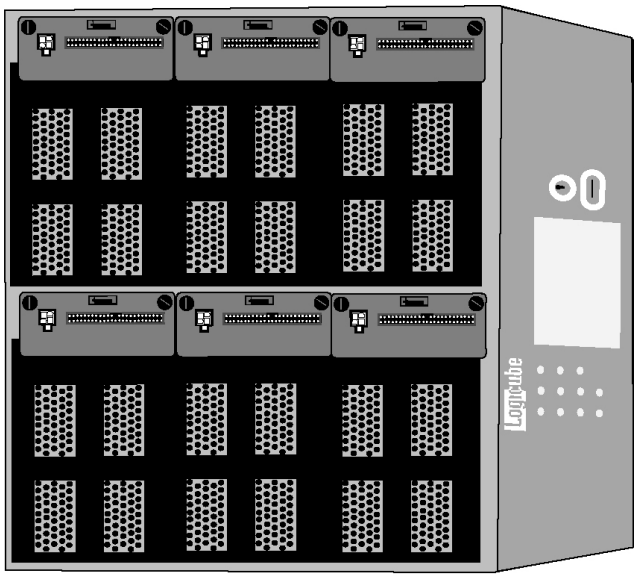




SYSTEM FEATURES – OMNICLONE 5Xi

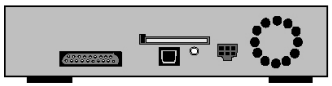
- Clones from one Master to up to 5 Target drives.
- Clones any IDE, EIDE or Serial ATA Drive.
- Data transfer rates in excess of 3.5 GB/min.
- Master and Target drives can be of different size, make and model.
- Easy to read graphical interface.
- Calibrated touch screen for fast input of settings and data.
- User-replaceable Drive Stations
- User-replaceable Internal Power Supply.

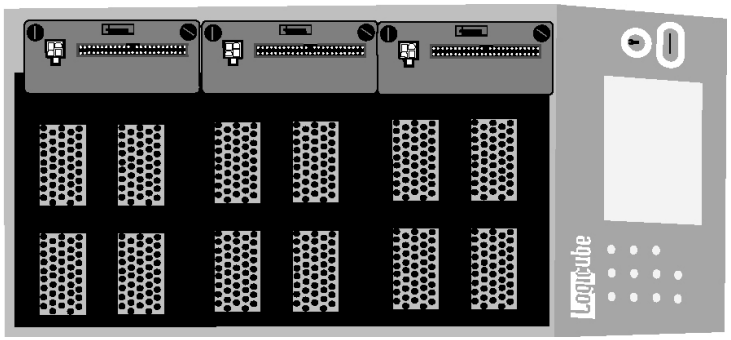




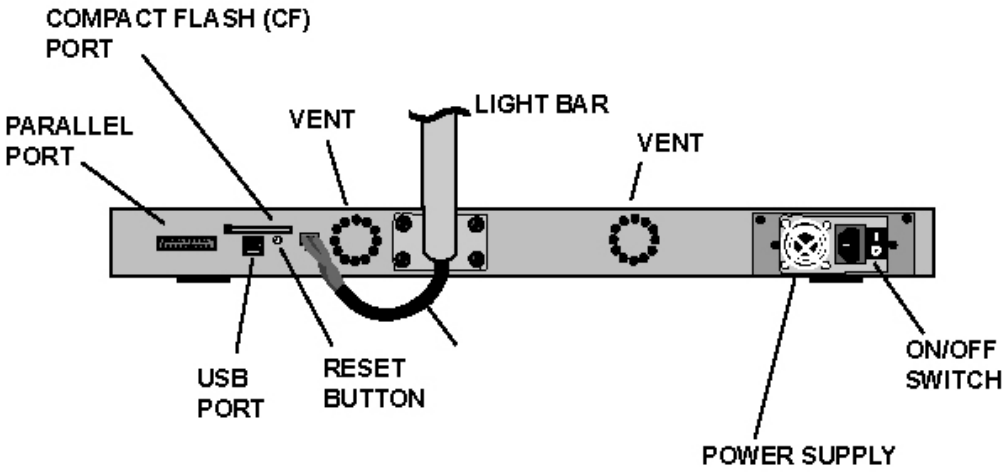
SYSTEM FEATURES – OMNICLONE 2Xi

- Clones from one Master to up to 2 Target drives.
- Clones any IDE, EIDE or Serial ATA Drive.
- Data transfer rates in excess of 3.5 GB/min.
- Master and Target drives can be of different size, make and model.
- Easy to read graphical interface.
- Calibrated touch screen for fast input of settings and data.
- User-replaceable Drive Stations
- External Power Supply.

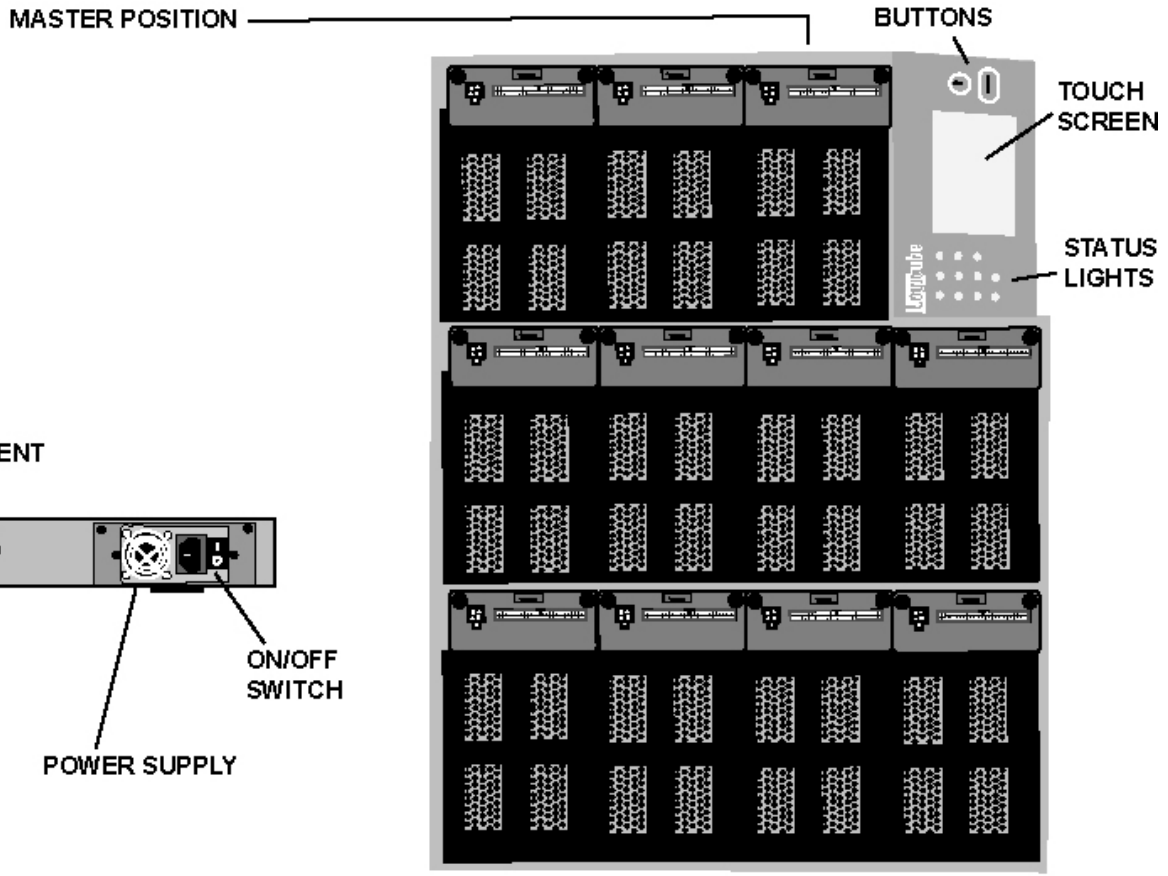




2. GETTING STARTED (FAST START)

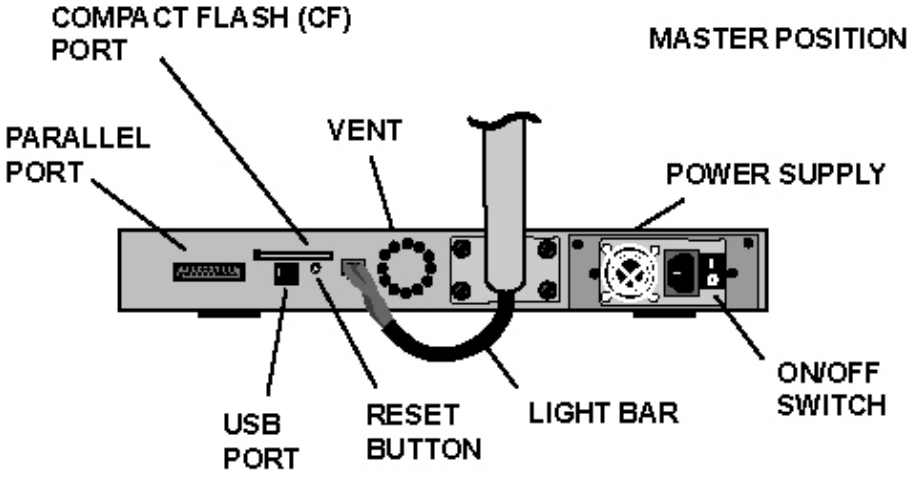


LOGICUBE OCXi: BACK

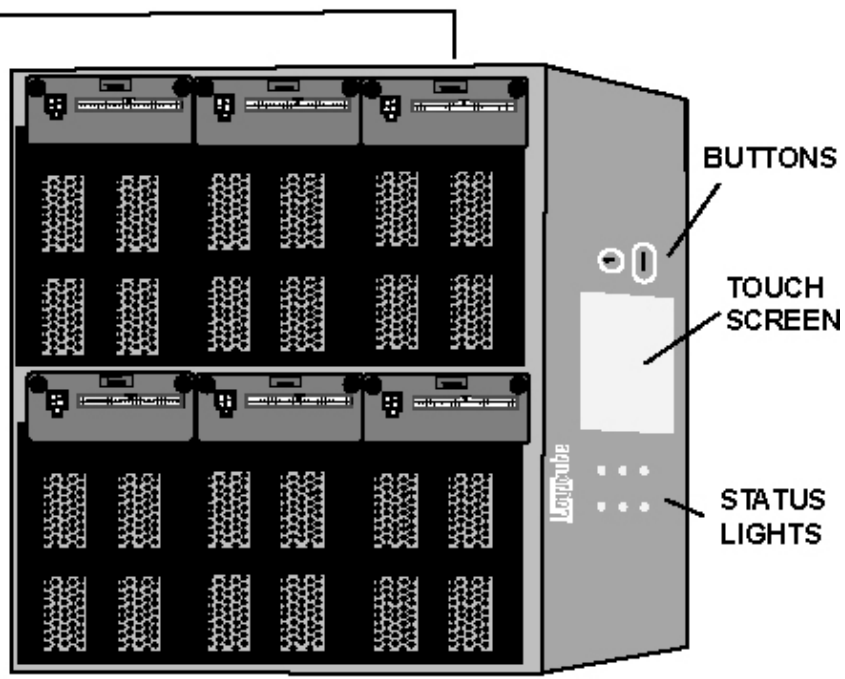


LOGICUBE OCXi: TOP

2. GETTING STARTED (FAST START)

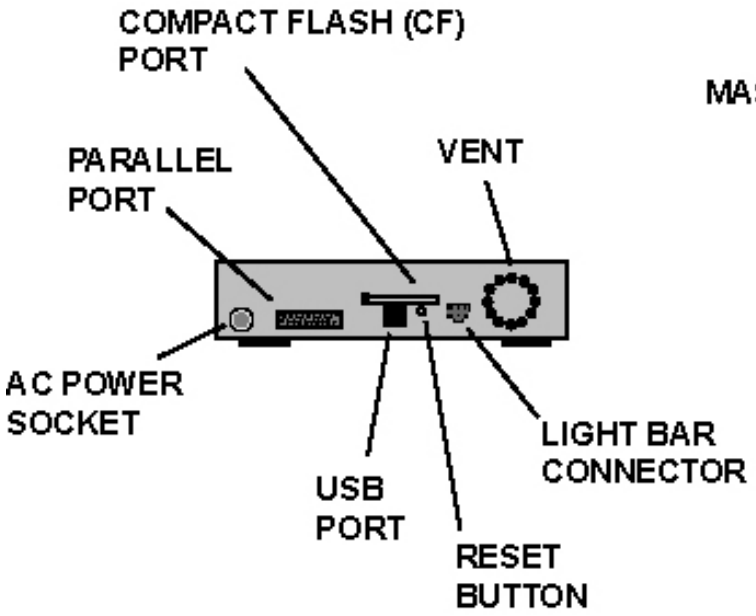


LOGICUBE OC5Xi: BACK

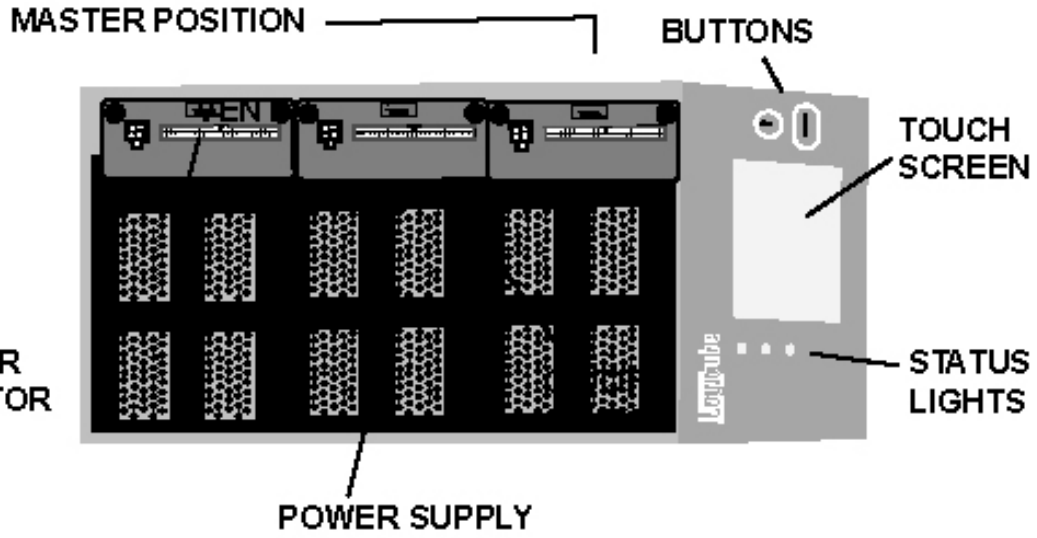


LOGICUBE OC5Xi: TOP

2. GETTING STARTED (FAST START)

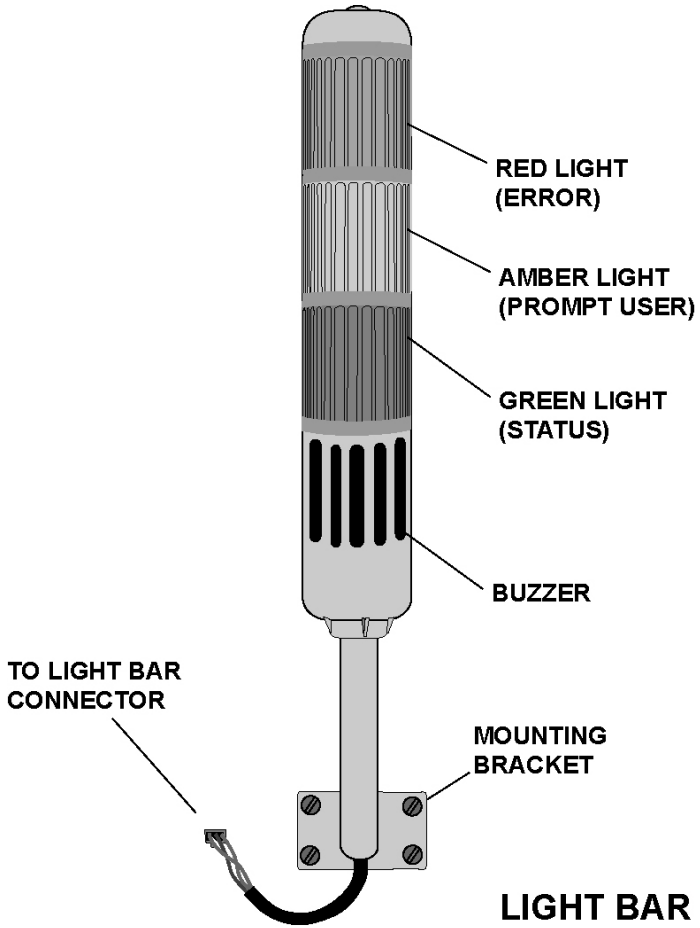


LOGICUBE OC2Xi: BACK

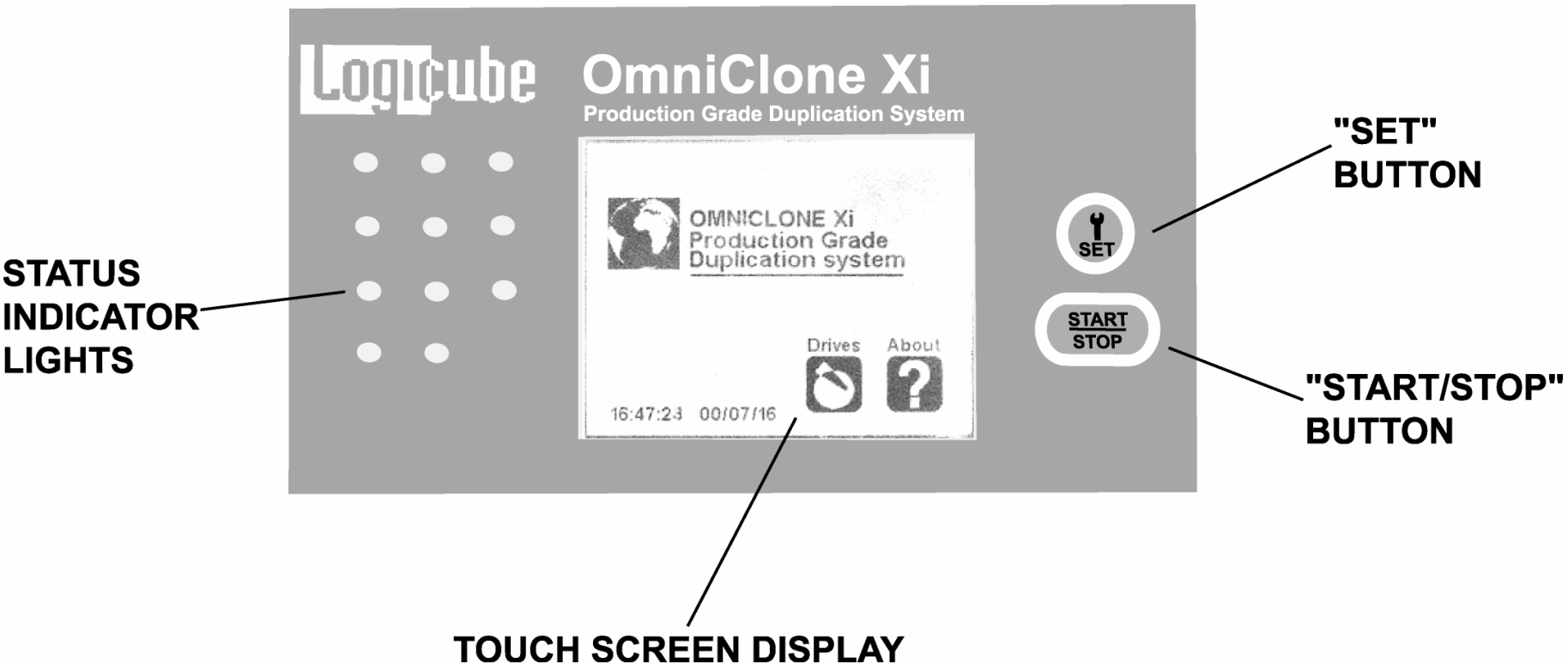


LOGICUBE OC2Xi: TOP

2. GETTING STARTED (FAST START)



2. GETTING STARTED (FAST START)

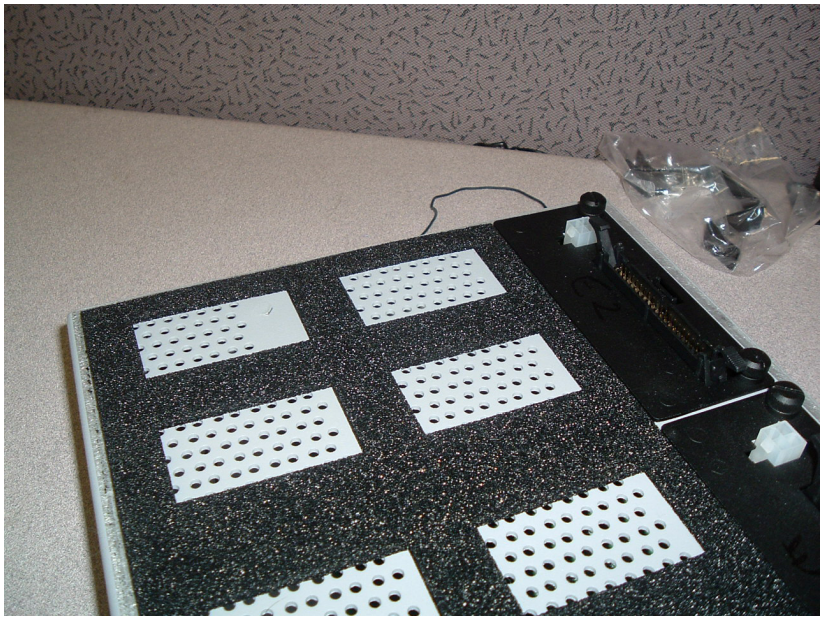


USER INTERFACE

2. GETTING STARTED (FAST START)

Attaching Drives (PATA) - Part 1

This next series of slides will Show you how to attach a Parallel-ATA (PATA) hard disk Drive to the Omniclone-Xi.

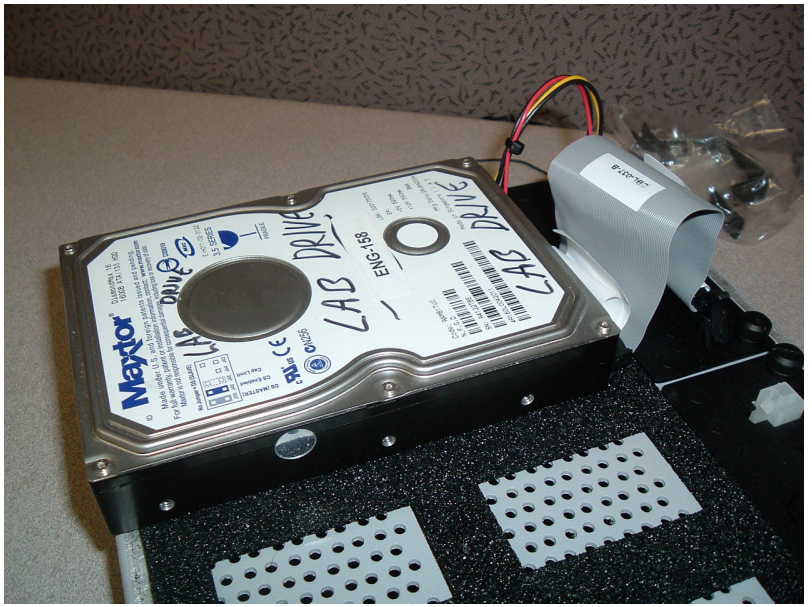


Note: PATA hard drives are also referred to as IDE, EIDE, UDMA or Parallel drives.

2. GETTING STARTED (FAST START)

Attaching Drives (PATA) – Part 2

1. **Locate the Master position on the top of your Omniclone-Xi™ unit. You will notice three connections: One for a flat cable (the drive data cable) and another for a small drive power cable. Above is the third connector for the Serial ATA cable.**

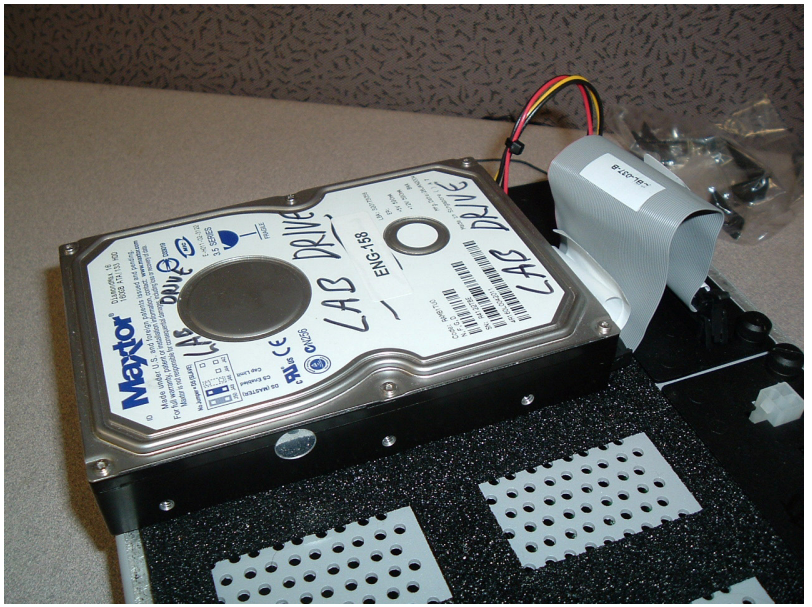


Note: The drive that is cloned from is always referred to as the **Master** drive and the drives that are cloned to are always referred to as the **Target** drives.

2. GETTING STARTED (FAST START)

Attaching Drives (PATA) – Part 3

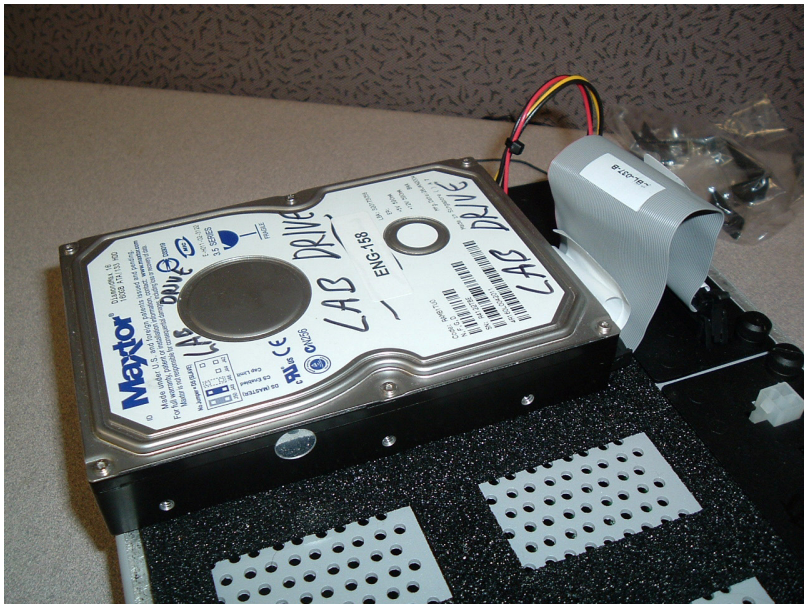
2. **Attach the 5” UDMA ribbon cable and the drive Power cable to the connectors.**
3. **Connect the Master hard drive to the cables and verify that the drive’s jumper is set to Single Master.**



2. GETTING STARTED (FAST START)

Attaching Drives (PATA) - Part 4

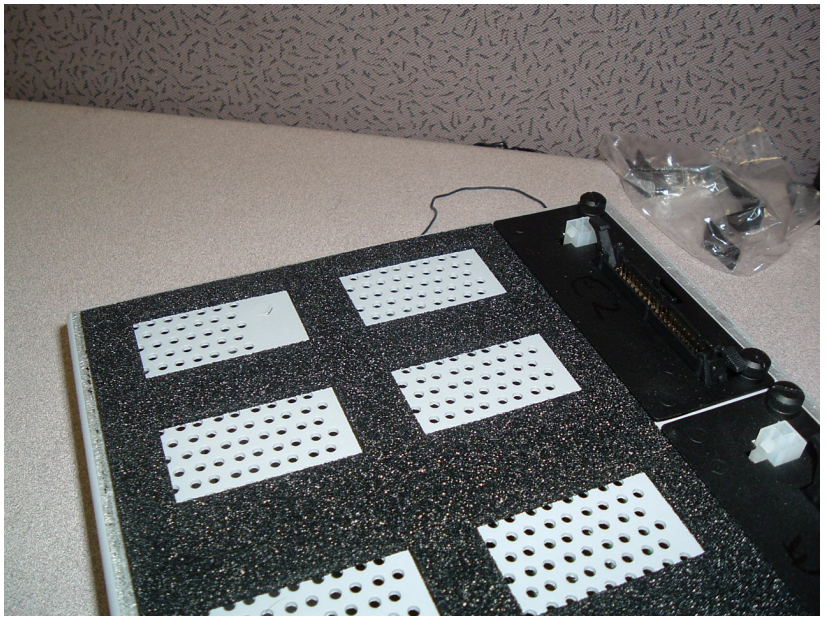
4. Follow steps 1 – 3 to attach drives to the Target positions of the Logicube Omniclone Xi™.
5. Connect the AC Power Cord to the back of the Logicube Omniclone Xi™ and power-up the unit. In 2 – 3 seconds, the main "Splash" screen appears.



2. GETTING STARTED (FAST START)

Attaching Drives (SATA) - Part 1

This next series of slides will Show you how to attach a Serial-ATA (SATA) hard disk Drive to the Omniclone-Xi.



2. GETTING STARTED (FAST START)

Attaching Drives (SATA) – Part 2

1. **Locate the Master position on the top of your Omniclone-Xi™ unit. You will notice three connections: One for a flat cable (the drive data cable) and another for a small drive power cable. Above is the third connector for the Serial ATA cable.**



Note: The drive that is cloned from is always referred to as the **Master** drive and the drives that are cloned to are always referred to as the **Target** drives.

2. GETTING STARTED (FAST START)

Attaching Drives (SATA) – Part 3

2. **Attach the 5” SATA cable to the SATA and drive power connectors.**
3. **Connect the Master hard drive to the cables.**



Note: SATA drives usually do not need to use jumper settings.

2. GETTING STARTED (FAST START)

Attaching Drives (SATA) – Part 4

4. **Follow steps 1 – 3 to attach drives to the Target positions of the Logicube Omniclone Xi™.**
5. **Connect the AC Power Cord to the back of the Logicube Omniclone Xi™ and power-up the unit. In 2 – 3 seconds, the main "Splash" screen appears.**



CONNECTING OTHER TYPES OF DRIVES

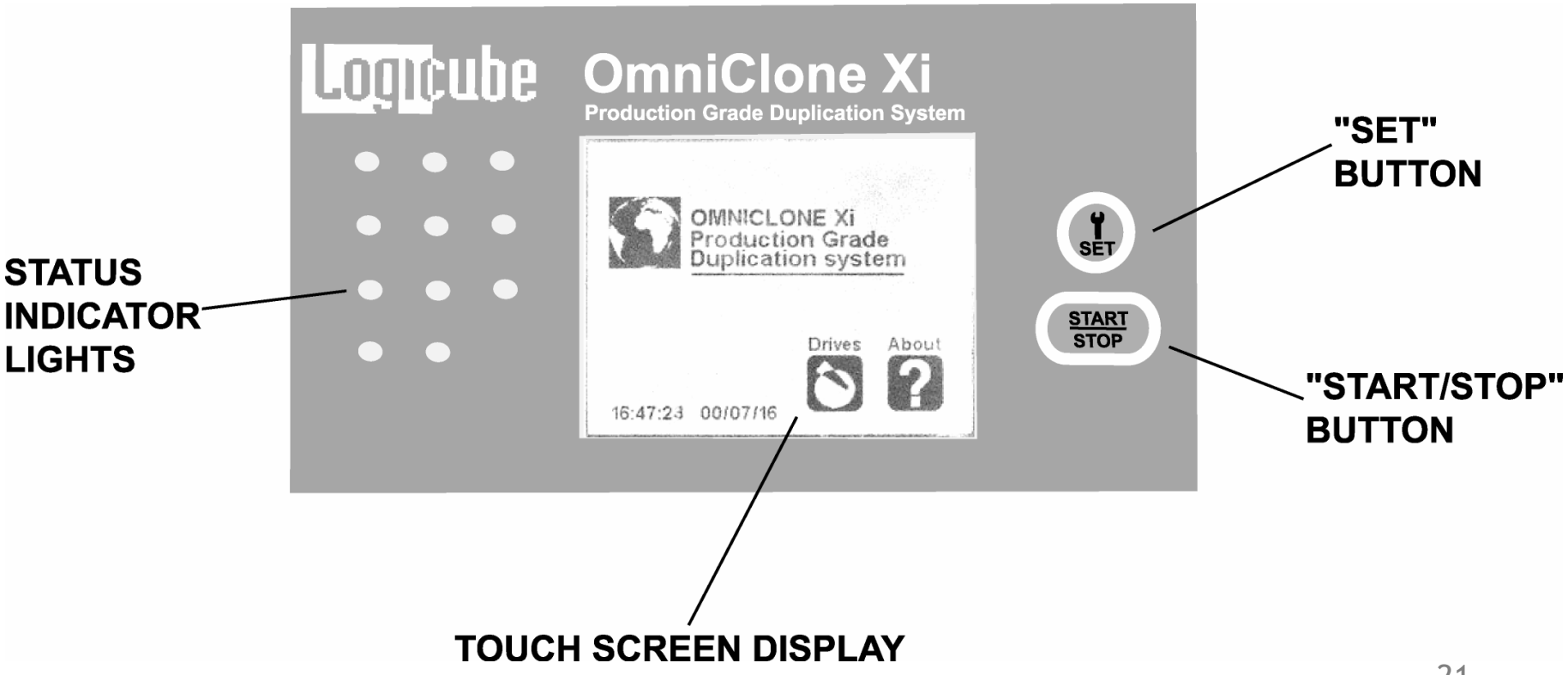
Logicube offers specialized adapters that allow other types of drives to be connected to the Omniclone – Xi series. Such drives include:

- **2.5” laptop drives**
- **1.8” laptop drives (e.g. Toshiba “iPod™” drives)**
- **Compact Flash (CF) drives.**



Other specialized adapters are also available. If you are unsure about the type of drive that you have, please contact Logicube Technical Support for assistance.

3. CLONING MODES AND SETTINGS



3. CLONING MODES AND SETTINGS
Touch Screen Display

The Omniclone Xi™ features an LCD Touch Screen that allows the user to quickly input commands.

The screen is bright and easy to read. It also emits an audible beep every time the touch screen is pressed. This lets the user know that the touch screen is active.



3. CLONING MODES AND SETTINGS
Calibrating the Touch Screen - Part 1

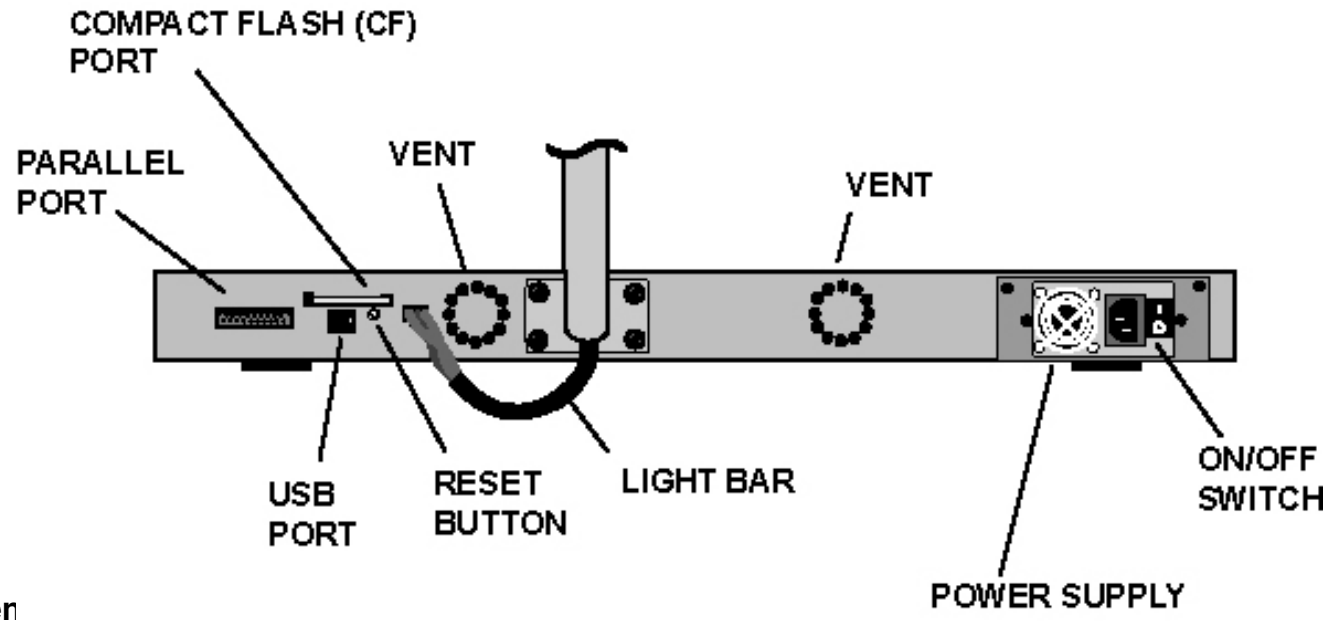
There may be times when the user wants to recalibrate the Touch Screen.

The procedure for this is very simple:



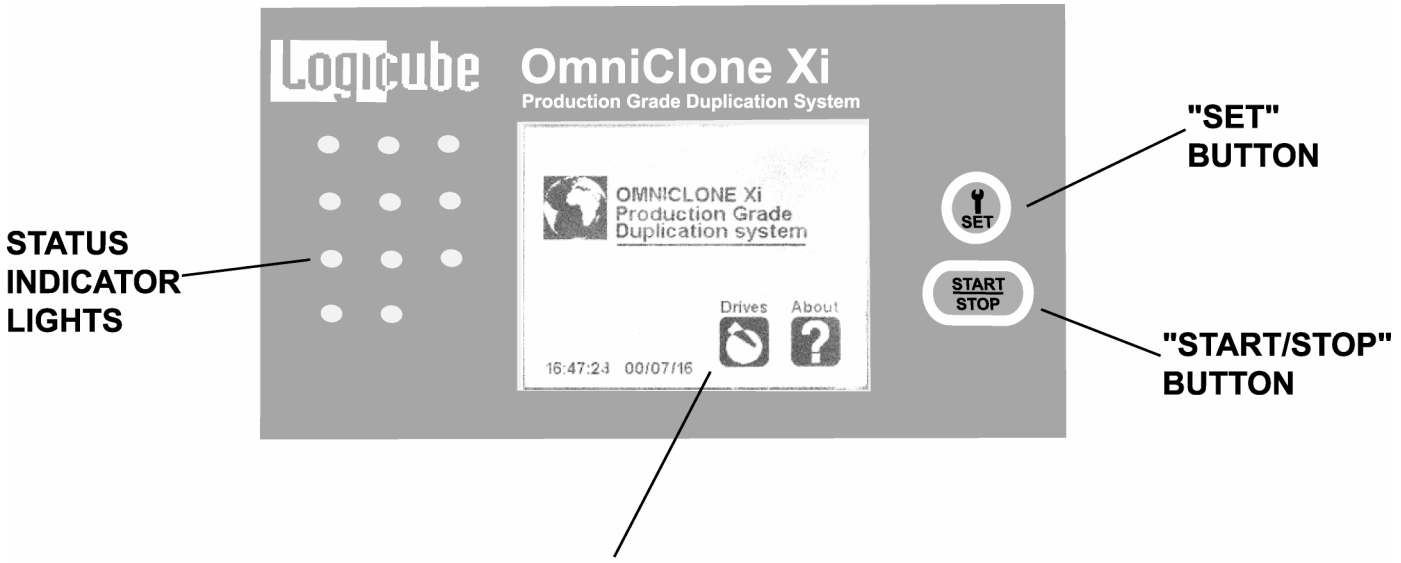
3. CLONING MODES AND SETTINGS
Calibrating the Touch Screen – Part 2

1. **Press the Reset button on the back of the unit and hold it in.**



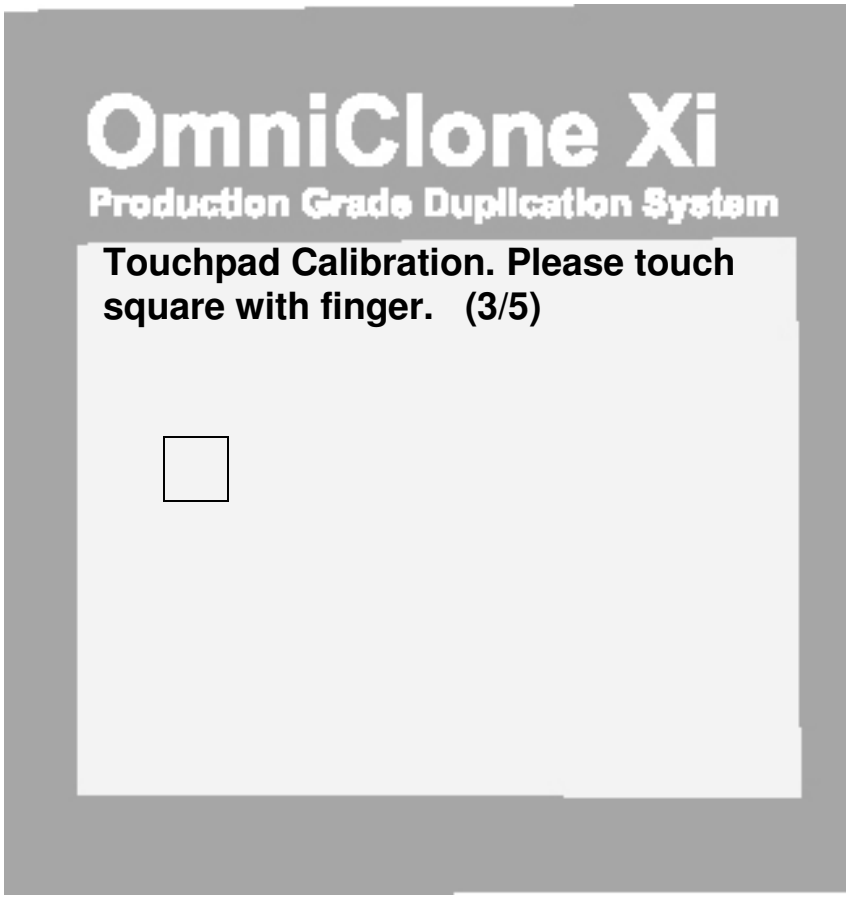
3. CLONING MODES AND SETTINGS
Calibrating the Touch Screen - Part 3

2. Press and hold the Set button, then release the Reset button.

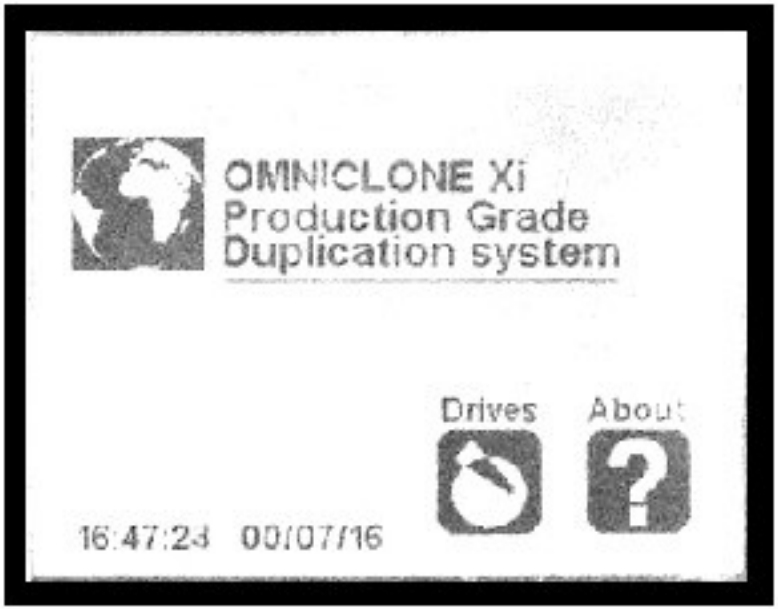


3. CLONING MODES AND SETTINGS
Calibrating the Touch Screen - Part 4

3. Hold the Set button until the unit boots to a screen that reads "Touchpad Calibration. Please touch square with finger (1/5)".
4. Look for a square at the top of the screen. Touch the square when it is located.
5. Repeat the previous step four more times. The unit will count each time the square is pressed correctly. It will count (1/5), (2/5), etc.
6. Once the screen has been calibrated, it will reboot to the Main Menu Screen.



3. CLONING MODES AND SETTINGS
Main Screen

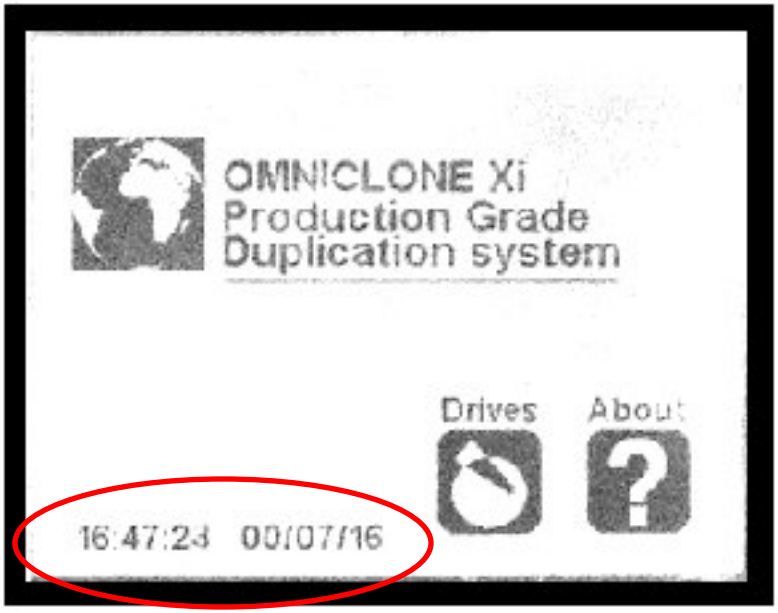


3. CLONING MODES AND SETTINGS
Main Screen

Time/Date Settings

The Omniclone Xi™ has a real-time clock that keeps track of the correct time and date.

The time and date can be easily set by touching it on the screen and entering in the new time/date.

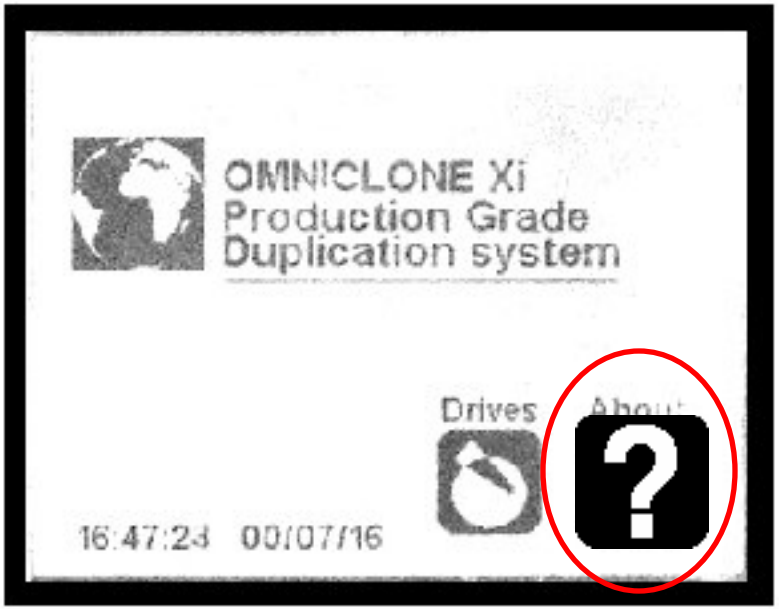


3. CLONING MODES AND SETTINGS
Main Screen

About Icon

Select the About Screen by pressing the "About" icon. It will display the serial number of your unit along with the software and firmware versions that are loaded.

In addition, the About screen lists all options currently enabled on the unit and provides contact information for Logicube Technical Support.



To return to the main menu, simply press the "Back" icon at any time.



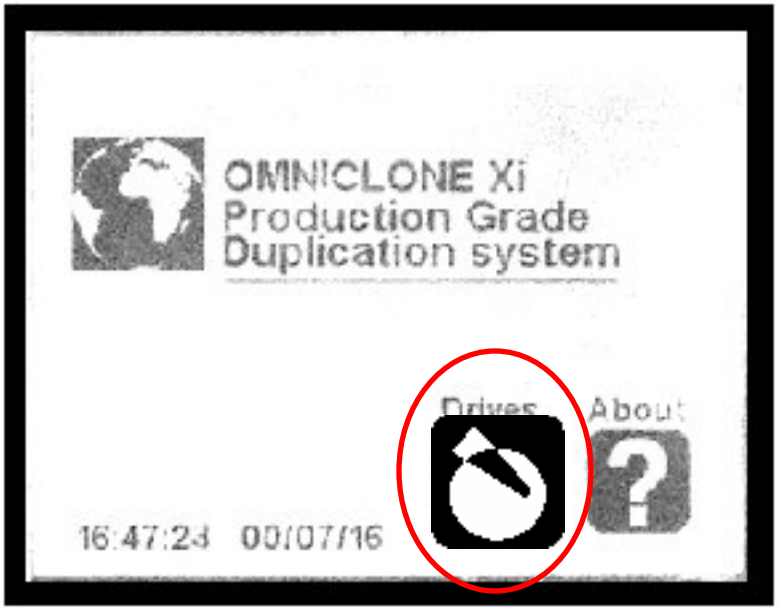
3. CLONING MODES AND SETTINGS
Main Screen

Drives Icon

Select the Drive Info screen by pressing the "Drives" icon. The unit will then power up all of the drives that are attached.

After 30 to 45 seconds, the unit will show a list of all the drives it has detected.

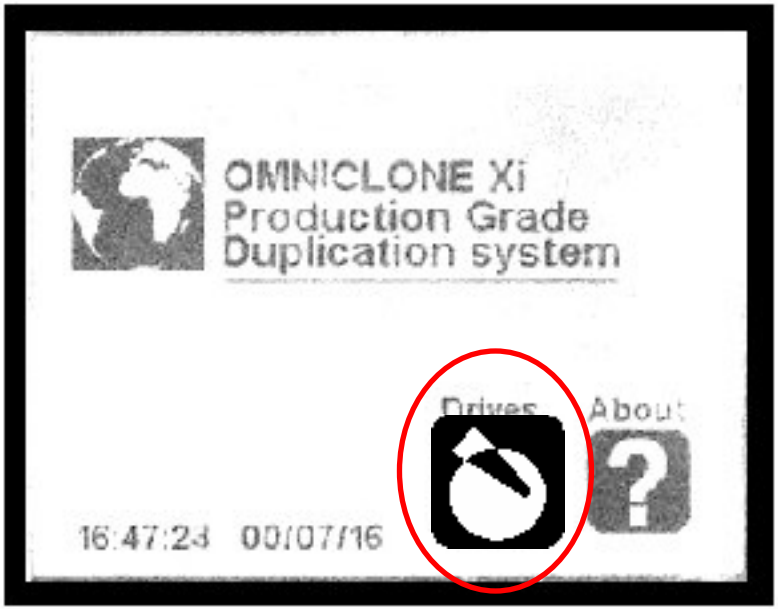
If a drive is pressed on the Touch Screen, the unit will access the drive and report back the drive's model number, capacity, geometry and other information.



3. CLONING MODES AND SETTINGS
Main Screen

Drives Icon

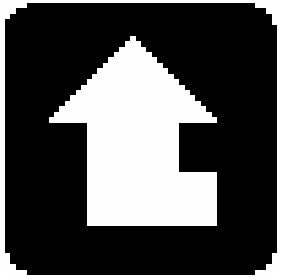
To see the drive's partition information, press the "See More" icon to display all of the partitions located on that drive.



To return to the list of drives, you may press the "Back" icon at any time. Pressing the Back icon again will go back to the Main Menu Screen.



3. CLONING MODES AND SETTINGS
Main Screen

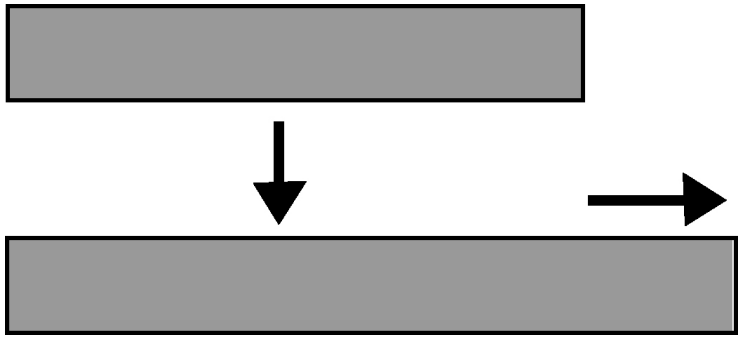


A Note About the Back Icon

The Back icon can be found in the lower left hand corner on most of the Touch Screens. Touching this icon will go back to the previous Settings screen or the Main Menu Screen.

3. CLONING MODES AND SETTINGS
CLEVER CLONE – Part 1

This is the default mode. It clones ALL partitions on the Master drive to the Target drives. It scales all known partitions (FAT16/32, and NTFS) to fill the Target in its entirety and makes all the necessary adjustments to ensure valid and bootable Target drives.
NOTE: Clever Clone is available by default for FAT partitions. NTFS Clever Clone is available as a purchased option.



NOTE: Any unrecognizable partition is automatically cloned with Mirror Clone mode. This includes non-Windows partitions like Linux, Unix, BSD and other partition types.

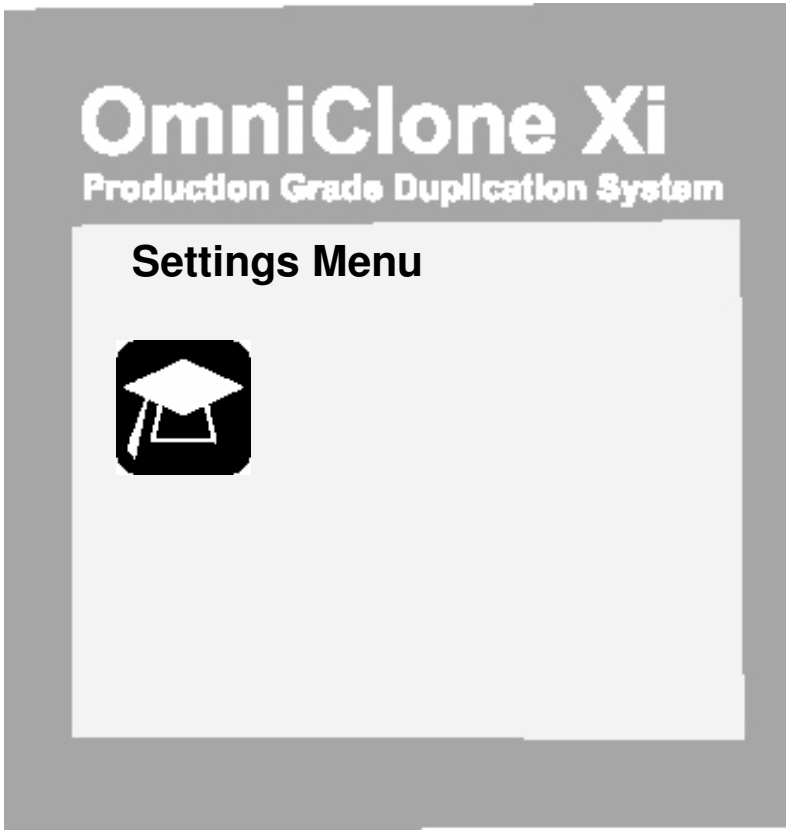
3. CLONING MODES AND SETTINGS
CLEVER CLONE - Part 2

Clever Clone – Step by Step

1. From anywhere in the menu system click the "Set" button to enter the Settings menu.

2. Press the Cloning Mode icon that appears in the upper left-hand corner. A list of the available cloning modes appears.

3. Press the "Clever" icon, the Clever Clone™ settings screen will appear.

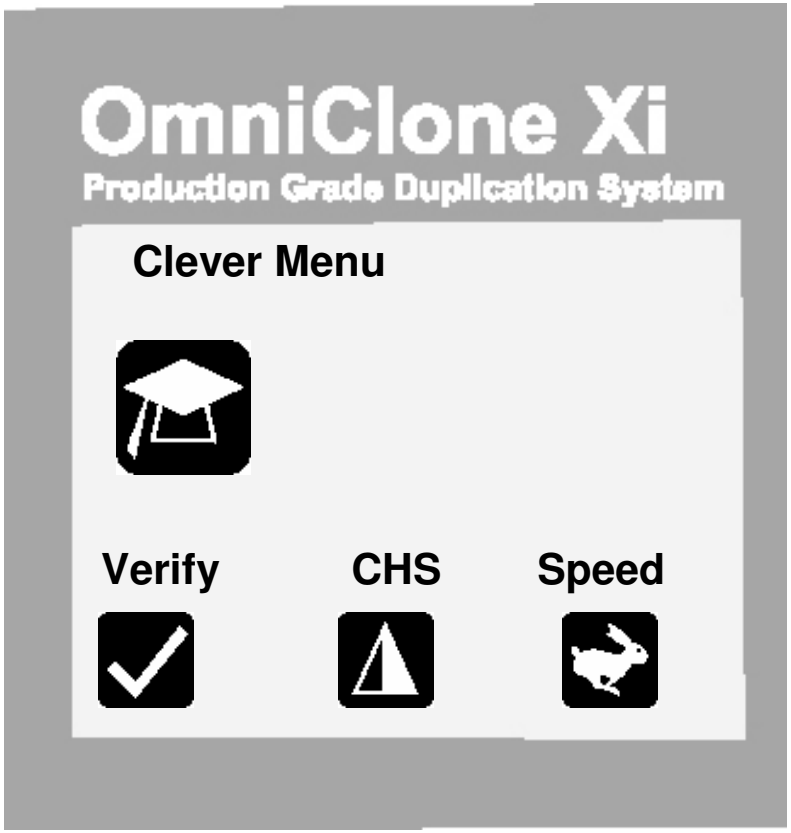


3. CLONING MODES AND SETTINGS
CLEVER CLONE – Part 3

Clever Clone – Step by Step

4. Adjust the "Verify", "CHS" and "SPEED" settings as needed. (These settings are discussed later in this chapter).

5. You may now double-click the "Start/Stop" button to start cloning.

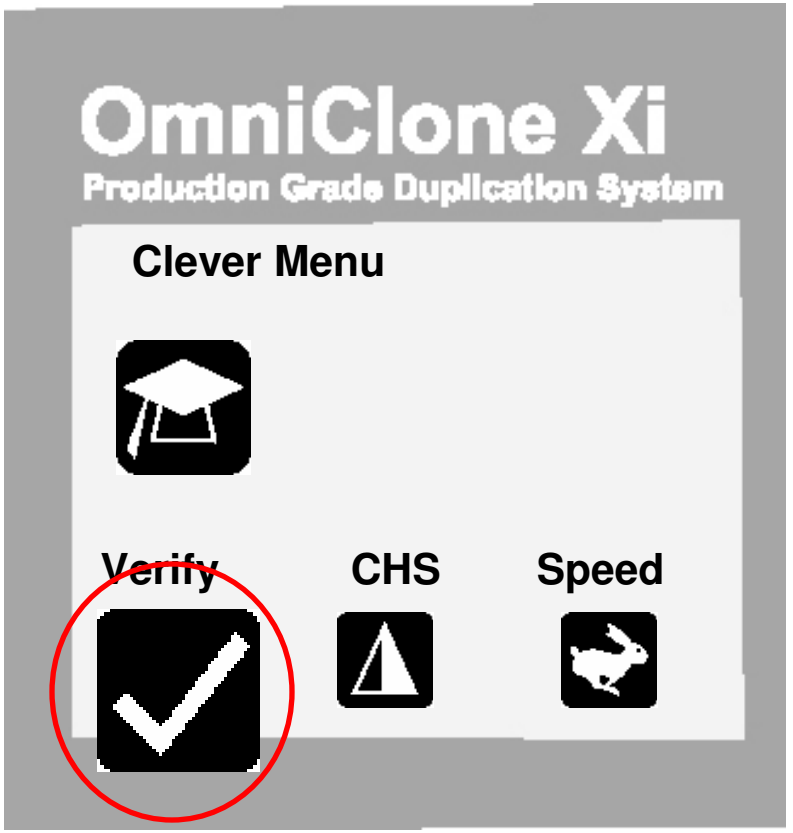


NOTE: When Clever Clone™ scales down an NTFS partition, it can only scale it to 55% of the original size.

3. CLONING MODES AND SETTINGS
VERIFY SETTING

Verify Setting

The Verify preference allows you to scan the Target drives for bad or weak sectors.



Verify Settings

No Verify (Default) - No data verification is performed.

1% Verify - Only the first 1% of the data sectors are verified. This is faster but less thorough than using the All setting.

100% Verify - Every data sector on the Target drive to which data has been written is checked.

3. CLONING MODES AND SETTINGS
CHS SETTING

CHS Setting

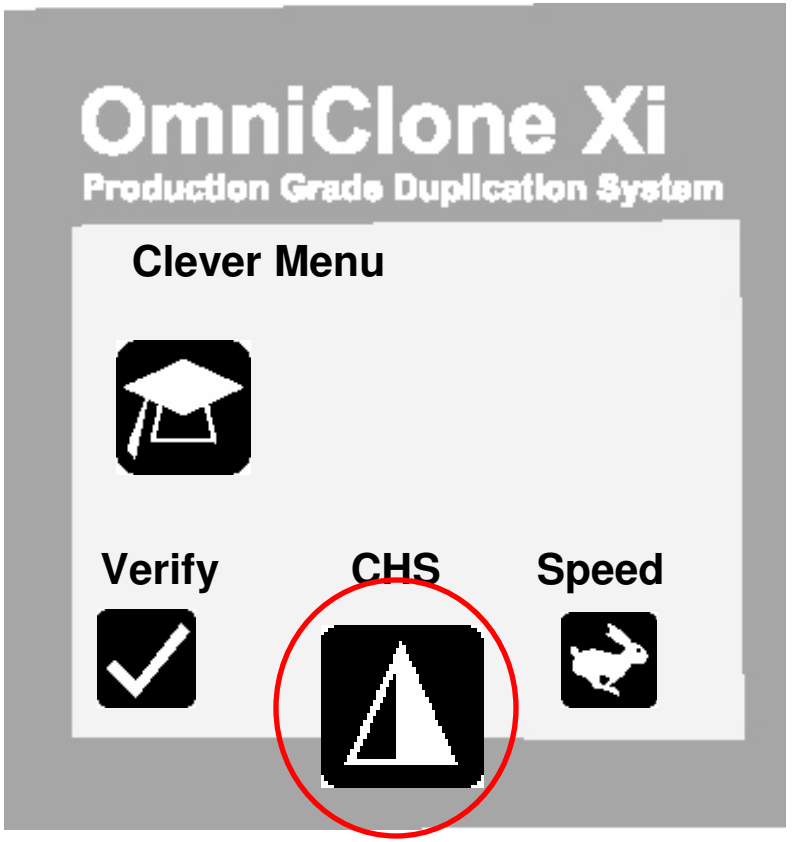
This Mode sets the geometry (Cylinder, Head and Sector) translation used on the Target drive. The Settings are:

LBA (Default) – 95% of PC's use this setting.

LARGE – Used only by Compaq, HP, IBM Thinkpad and a handful of other PC's.

LBA/LARGE –1 or –2 – Shaves off 1 or 2 cylinders from the end of the formatted drive.

LBA/LARGE 8.5 – Setting used by older BIOS systems that cannot see drives > 8.5GB.



3. CLONING MODES AND SETTINGS
SPEED SETTING

Speed Setting

This Mode sets the highest speed that drives will clone:

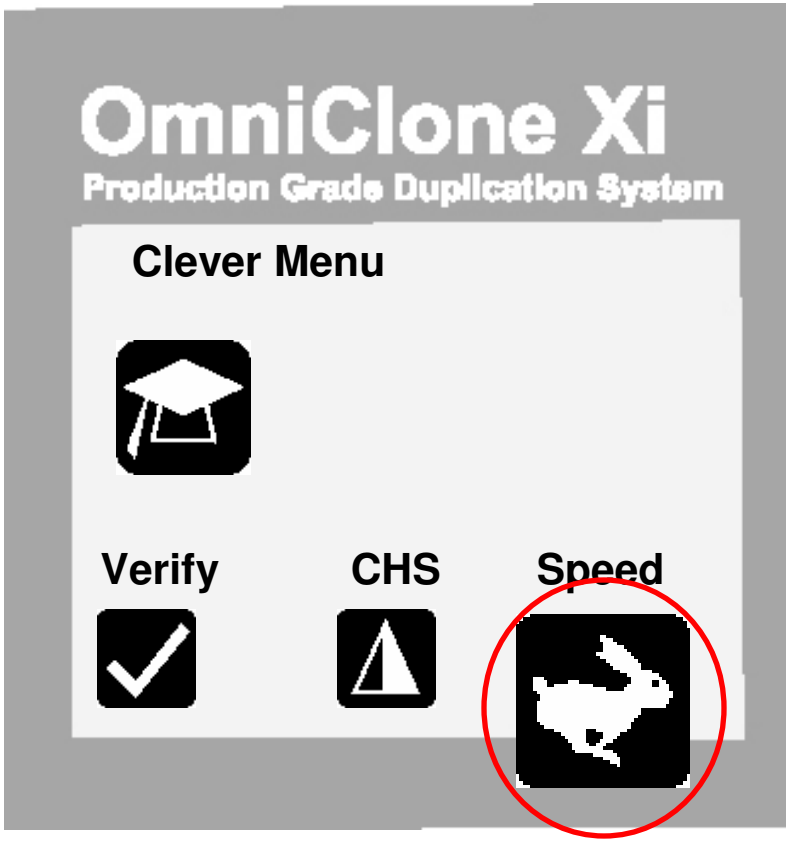
UDMA-5 - The software performs a test procedure to determine the fastest setting that the drives will tolerate while streaming data from one to the other.

NOTE: The unit will automatically determine the best speed setting.

UDMA-4 to UDMA-0 – Slower speeds that still use the UDMA transfer.

PIO-Auto (PIO-4) – The highest non-UDMA speed for older drives.

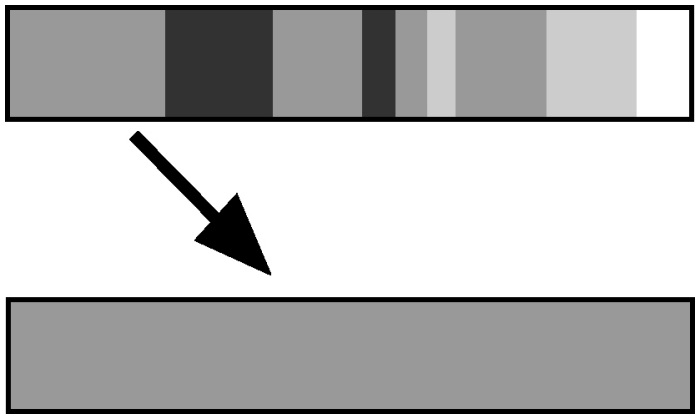
PIO Medium and Slow – These settings are used for older or damaged Master drives.



3. CLONING MODES AND SETTINGS
SELECTIVE CLONE – Part 1

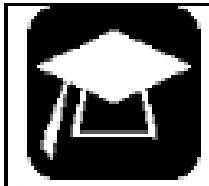
This is the most elaborate and most flexible mode. It allows the highest level of control over the cloning process.

NOTE: Selective Clone Mode is an optional function that has to be purchased in order to be enabled.



Selective mode allows you to select one or multiple partitions to clone. It also allows you to choose a unique copy method to use for each. The available methods are:

3. CLONING MODES AND SETTINGS
SELECTIVE CLONE - Part 2

	CleverCopy	Use the CleverCopy algorithm for this partition
	Defragment	Defragment this partition on-the-fly (FAT16/32 only)
	Mirror	Simple partition mirror (no adjustments)
	None	Do not copy this partition

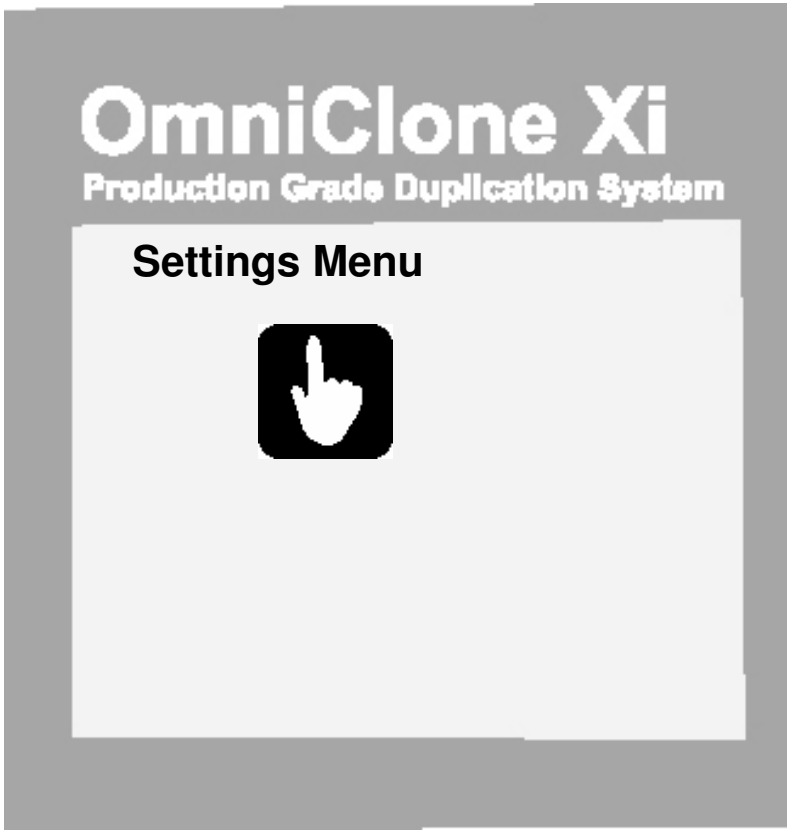
3. CLONING MODES AND SETTINGS
SELECTIVE CLONE – Part 3

Selective Clone – Step by Step

1. From anywhere in the menu system click the "Set" button to enter the Settings menu.

2. Press the Cloning Mode icon that appears in the upper left-hand corner. A list of the available cloning modes appears.

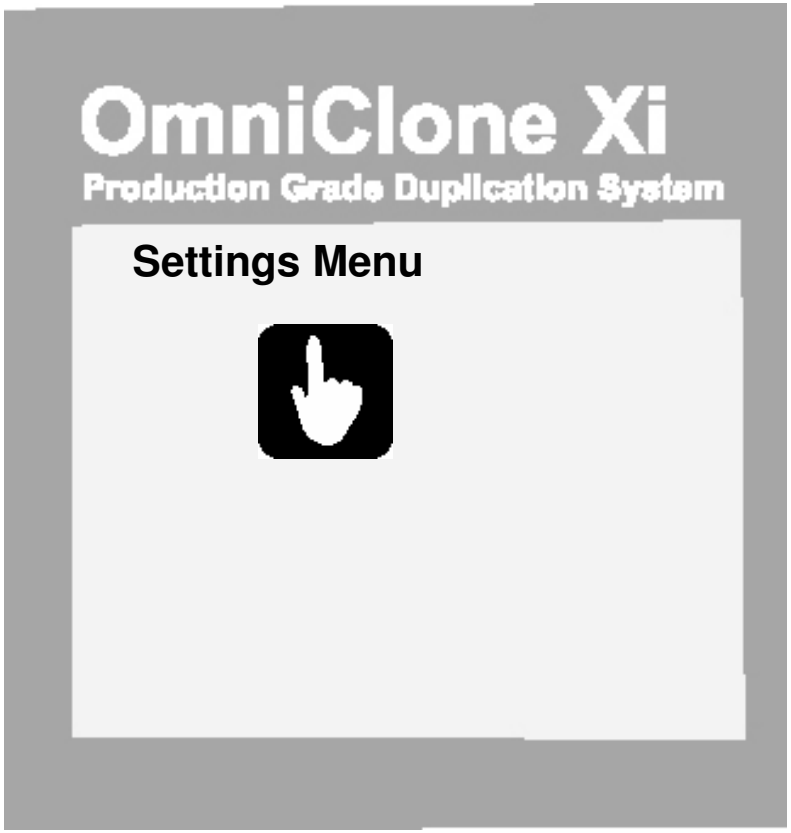
3. Press the "Selective" icon, the unit will immediately power the Master drive and display the partition table.



3. CLONING MODES AND SETTINGS
SELECTIVE CLONE – Part 4

Selective Clone – Step by Step

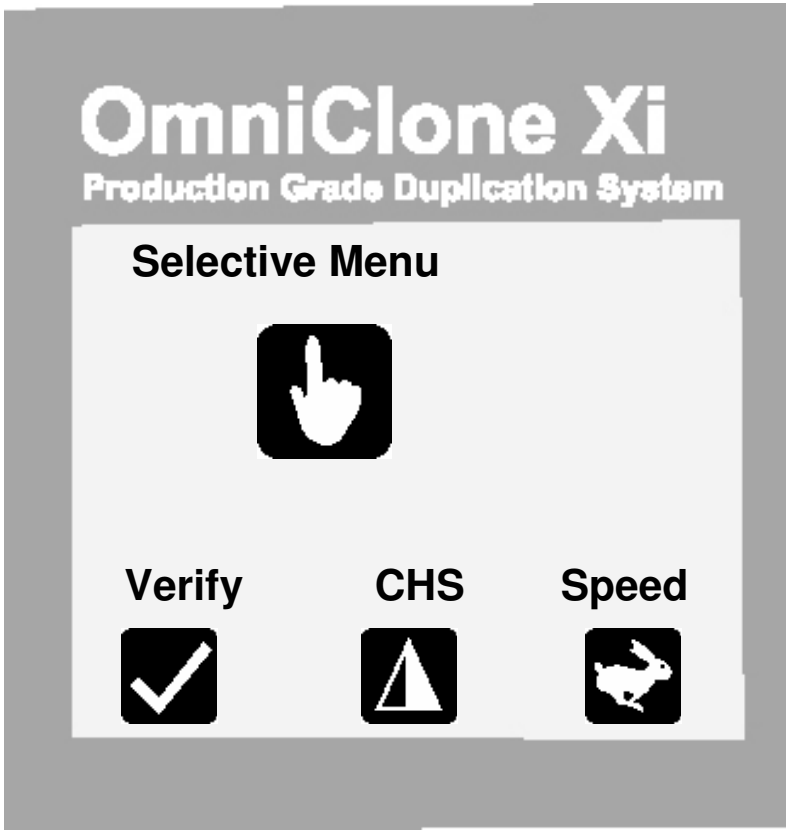
4. On the right hand side you will see a designator for the partition type. Some examples are:
   - 16 - FAT16 partition
   - 32 - FAT32 partition
   - NT - NTFS partition
   - Linux – Linux partition
   - ?? - unknown partition
5. Touch the scroll icons to place the cursor by a given partition, and then touch the space to the left of the partition multiple times to choose.



3. CLONING MODES AND SETTINGS
SELECTIVE CLONE – Part 5

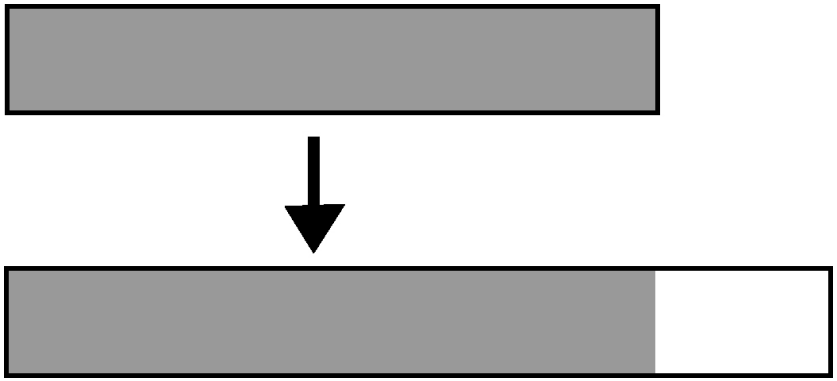
Selective Clone – Step by Step

6. Scroll to other partitions and repeat Step 5. Note that it is OK to assign unique cloning modes to each selected partition.
7. When finished, press the "Set" button. The Selective Clone™ settings screen will appear.
8. Adjust the "Verify", "CHS" and "SPEED" settings as needed.
9. You may now double-click the "Start/Stop" button to start cloning.



3. CLONING MODES AND SETTINGS
MIRROR CLONE – Part 1

This mode simply makes a bit-by-bit mirror copy of the Master drive. It does not adjust any values. This mode is only recommended when all else fails and even then only between similar geometry drives. It is also recommended for non-Windows partitions like UNIX, LINUX and other such systems.



You can dial the percentage of Master disk you wish to mirror. For example, setting to 50% will mirror the first 50% of the Master drive's size.

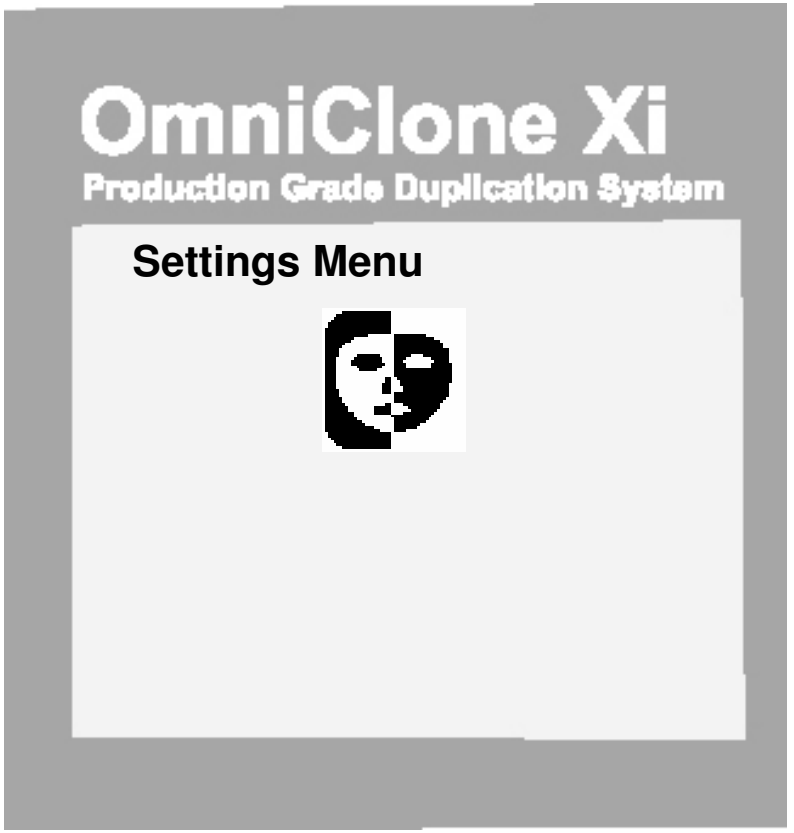
3. CLONING MODES AND SETTINGS
MIRROR CLONE - Part 2

Mirror Clone – Step by Step

1. From anywhere in the menu system click the "Set" button to enter the Settings menu.

2. Press the Cloning Mode icon that appears in the upper left-hand corner. A list of the available cloning modes appears.

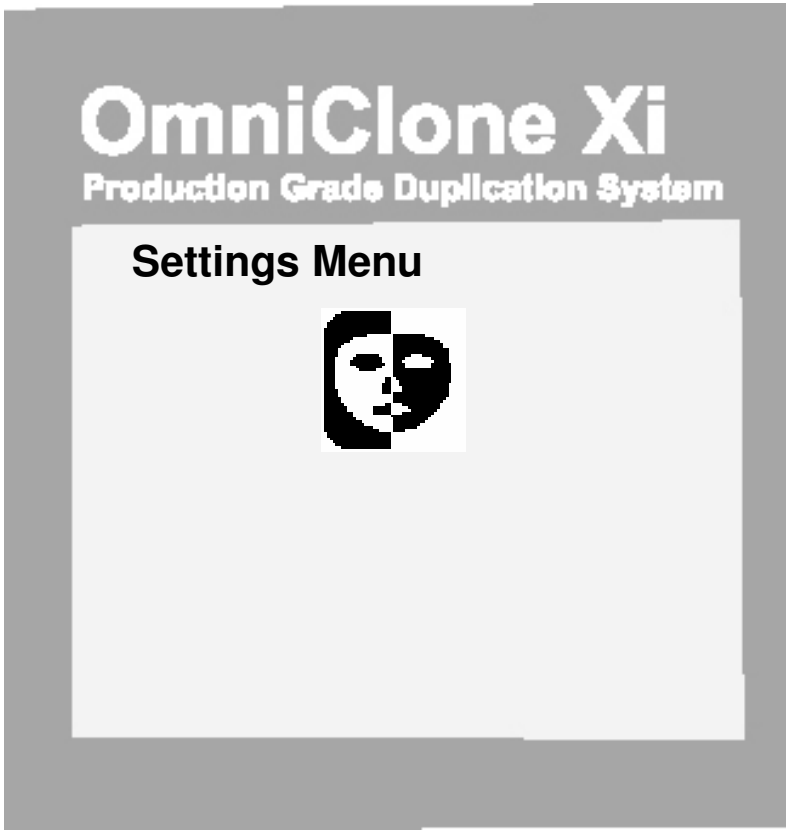
3. Press the "Mirror" icon.



3. CLONING MODES AND SETTINGS
MIRROR CLONE - Part 3

Mirror Clone – Step by Step

4. **A screen appears asking you what percentage of the Master drive to clone. Touch the numeric keypad to adjust this value from 0 – 100% for the front and rear of the drive.**
5. **For example, if you were to enter 20 for the front and 30 for the back, Mirror Clone would copy the first 20% of the Master drive, skip over the next 50% and clone the remaining 30%.**

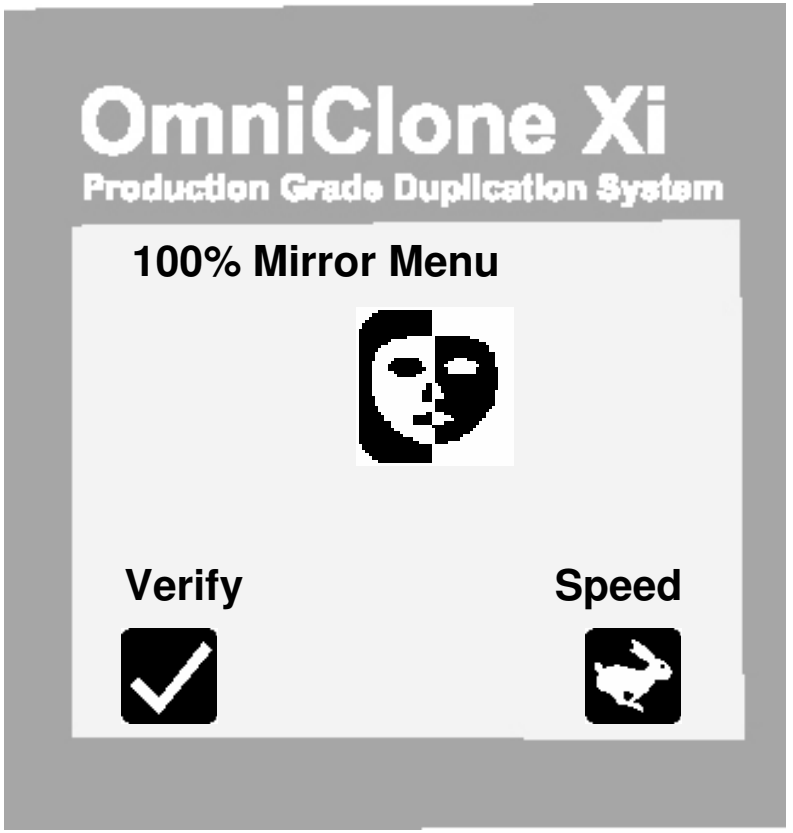


3. CLONING MODES AND SETTINGS
MIRROR CLONE - Part 4

Mirror Clone – Step by Step

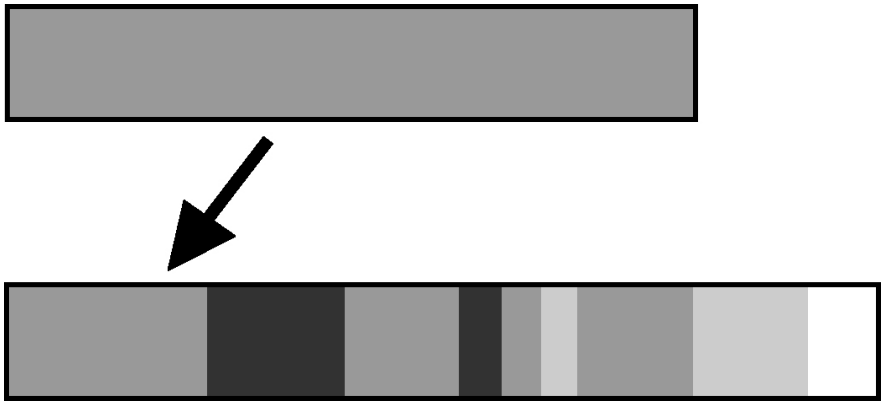
6. Adjust the "Verify", "CHS" and "SPEED" settings as needed.

7. You may now double-click the "Start/Stop" button to start cloning.



3. CLONING MODES AND SETTINGS
MASTER MANAGER - Part 1

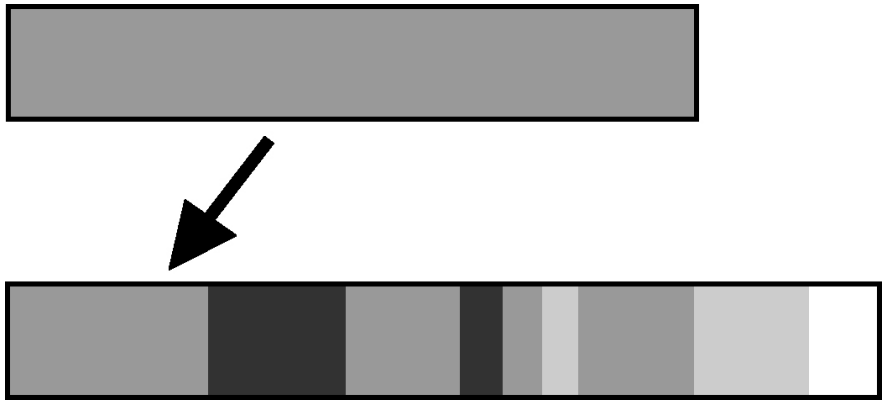
This is a special mode that assists in the creation of Master drives. It lets the user choose exactly one partition from the drive in the Master position (referred to henceforth as the Source drive) and clone it to the drive in the Target 1 position (referred to henceforth as the Destination drive).



The Omniclone Xi™ can hold up to 24 partitions on one Master drive. Drives over 250GB in size have been tested with Master Manager successfully.

3. CLONING MODES AND SETTINGS
MASTER MANAGER - Part 2

The Master Manager is a useful tool to aid in the creation of a multi-partition Master drive. Many MIS technicians like to store multiple partitions (e.g. one for accounting, one for marketing, etc.) on a single Master drive. When a drive crash occurs or a new PC is to be configured, all the technician needs to do is select that partition and clone it. The tool is also useful to create backups of important partitions.



NOTE: Master Manager Mode is an optional function that has to be purchased in order to be enabled.

3. CLONING MODES AND SETTINGS
MASTER MANAGER - Part 3

Master Manager – Step by Step

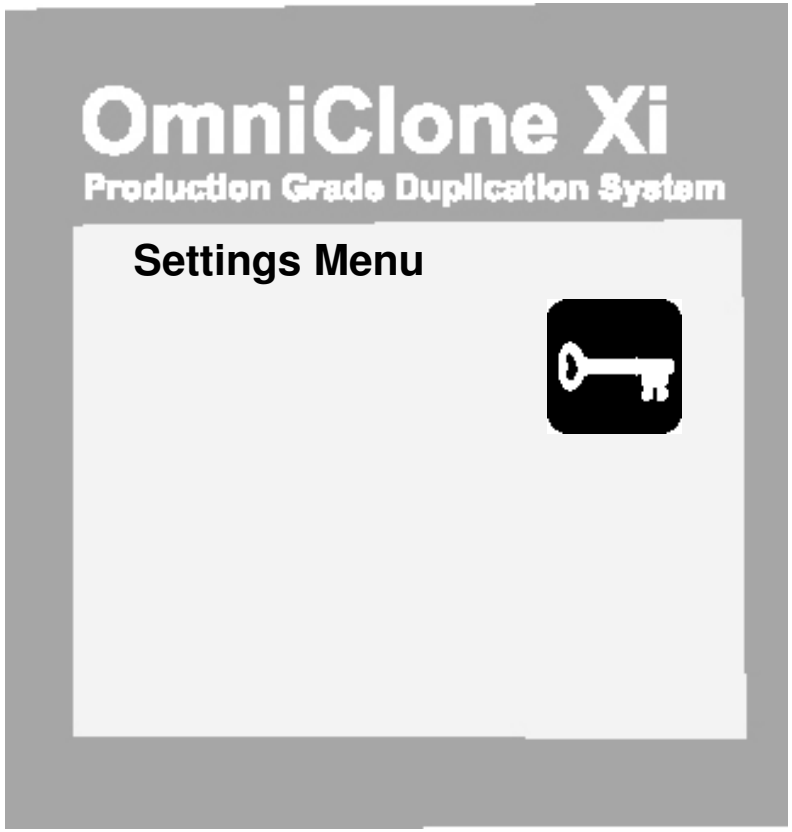
To create a Master drive using Master Manager, you must start with an unformatted drive. (Use the Wipeclean™ Mode, FDISK or a third party tool to wipe out the intended drive's partition table.)



3. CLONING MODES AND SETTINGS
MASTER MANAGER – Part 4

Master Manager – Step by Step

1. From anywhere in the menu system click the Set button to enter the Settings menu.
2. Press the Cloning Mode icon that appears in the upper left-hand corner. A list of the available cloning modes appears.
3. Press the "MMgr" icon, the Master Manager™ settings screen will appear.

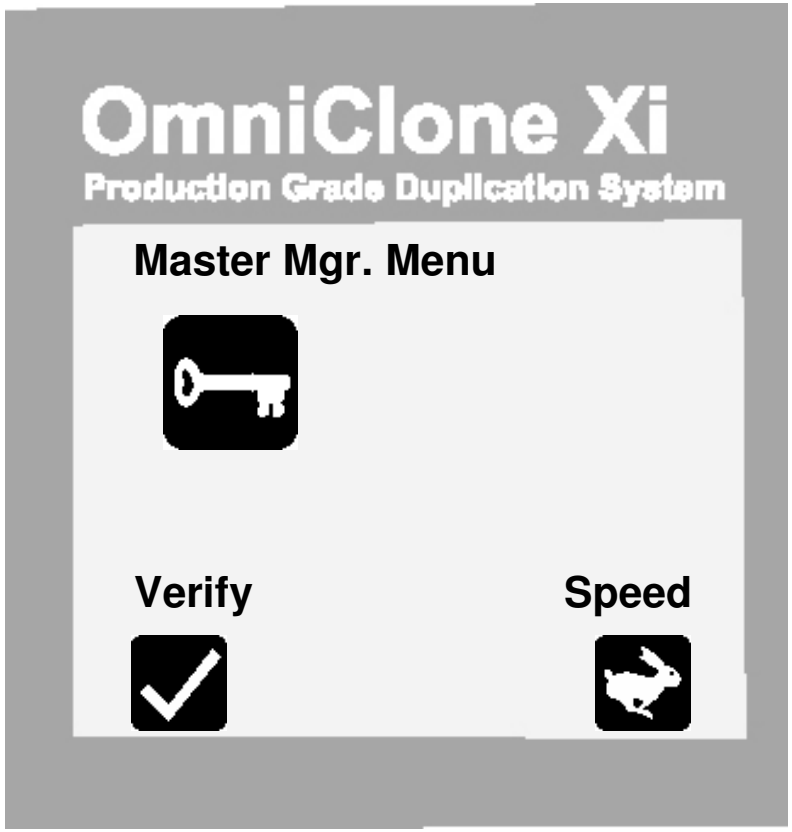


3. CLONING MODES AND SETTINGS
MASTER MANAGER – Part 5

Master Manager – Step by Step

4. Adjust the "Verify" and "SPEED" settings as needed. (These settings are discussed later in this chapter).
5. You may now double-click the "Start/Stop" button to start cloning. You will be warned that continuing will modify your Destination drive. If you are ready to do this, choose "Yes" to continue.

NOTE: When Clever Clone™ scales down an NTFS partition, it can only scale it to 55% of the original size.



3. CLONING MODES AND SETTINGS
MASTER MANAGER – Part 6

Master Manager – Step by Step

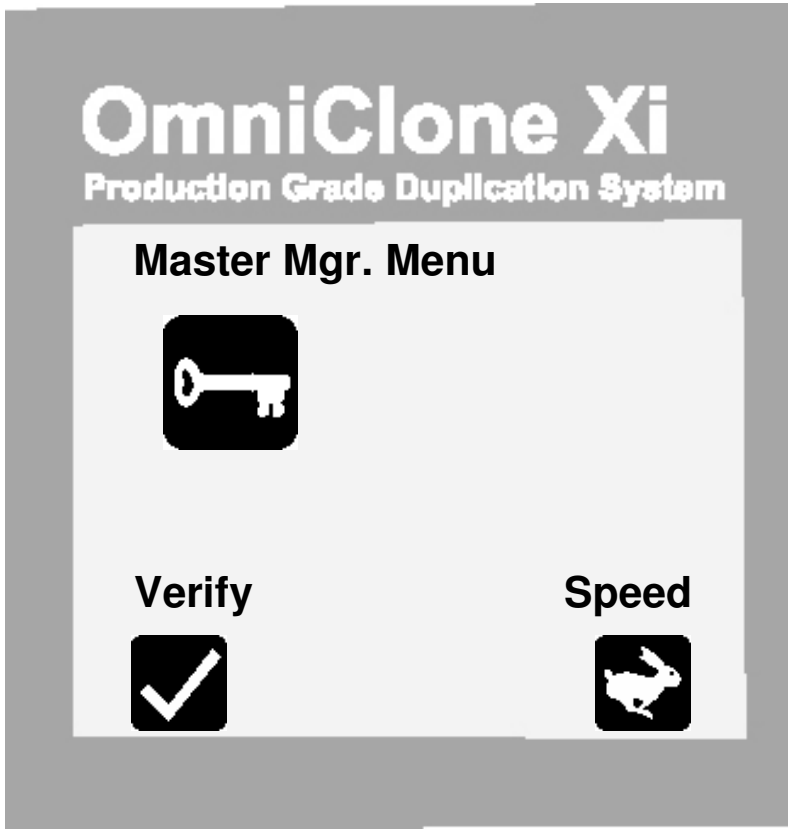
6. Touch the scroll icons to place the cursor by one single partition, and then touch the space to the left of the Volume Label multiple times to cycle among the 4 options. Master Manager uses the same cloning icons as Selective Clone Mode.

	CleverCopy	Use the CleverCopy algorithm for this partition
	Defragment	Defragment this partition on-the-fly (FAT16/32 only)
	Mirror	Simple partition mirror (no adjustments)
	None	Do not copy this partition

3. CLONING MODES AND SETTINGS
MASTER MANAGER – Part 7

Master Manager – Step by Step

7. Press the Start/Stop button. After a few seconds, the Destination partitions (if any) are displayed.
8. Touch the Scroll icons to place the cursor by a Destination partition you want to overwrite, or scroll down to the "Add Partition" item. Touch the space to the left of the Volume Label to choose the desired partition or to add a new partition.
9. Hit the "Start/Stop" button to begin cloning.



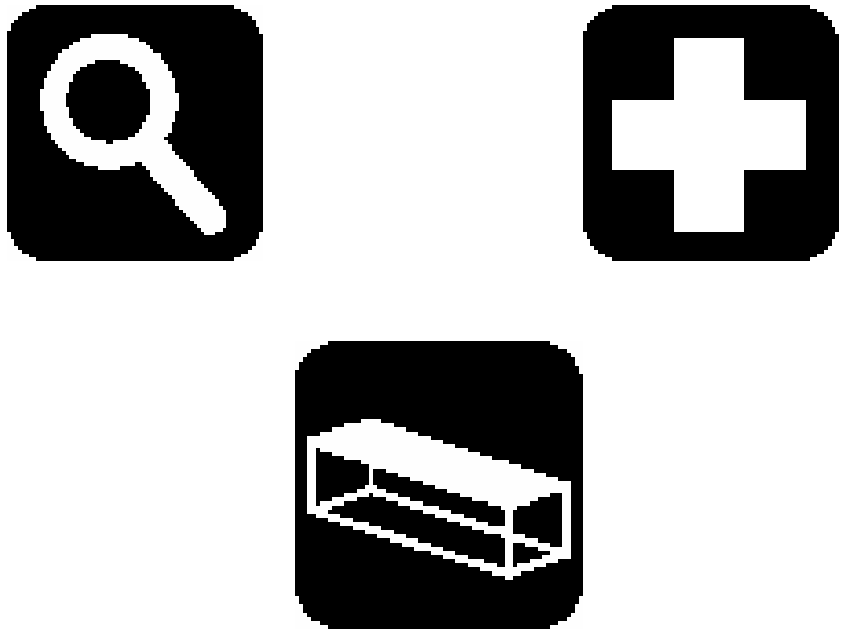
3. CLONING MODES AND SETTINGS
MASTER MANAGER - Part 8

Master Manager – Step by Step

10. Repeat the previous steps to add partitions to the Destination drive. Master Manager will let you add more partitions until you reach 24 partitions or run out of space.



4. OMNIDIAGNOSTICS

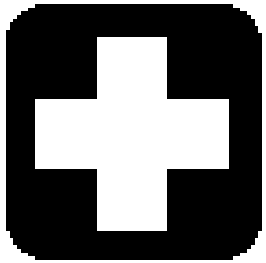


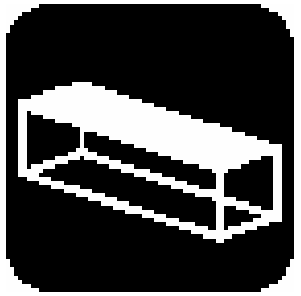
4. OMNIDIAGNOSTICS

OmniDiagnostics™ is a powerful set of features that aid in the recovery and repair of drives with bad or weak data sectors, and in the secure erasure of sensitive data.

NOTE: OmniDiagnostics™ like NTFS Clever Clone, Selective and Master Manager is an option that needs to be purchased in order to be enabled.







4. OMNIDIAGNOSTICS
Scan Target Mode - Part 1

Scan Target mode scans the Target drives for weak and bad data sectors. It uses the Read-Verify command of the ATA specification to detect bad or weak spots on the Target drives. When a suspect area of the drive is detected, a sector-by-sector analysis is performed.

If a given sector is read incorrectly one or more times out of 10 tries, it is considered to be weak. If it is read incorrectly 10 times out of 10, it is considered to be bad.

Any drive that shows weak sectors should be returned to the manufacturer or retired due to the higher risk of potential data loss.

4. OMNIDIAGNOSTICS
Scan Target Mode - Part 2

When using Scan Target mode there are two levels of scanning speed to choose from:

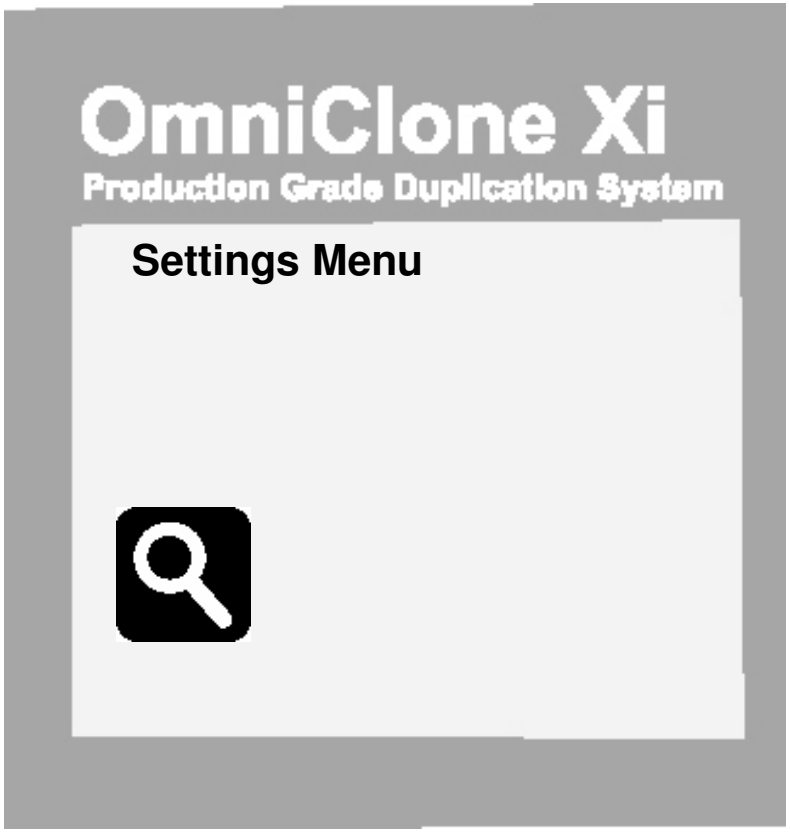
- **Fast** (Default) – This is the fastest.
- **Thorough** – This is the most thorough.

The Thorough operation writes patterns to some sectors, which can cause data corruption. Use this setting only when data loss is not an issue.

4. OMNIDIAGNOSTICS
Scan Target Mode - Part 3

Scan Target Mode – Step by Step

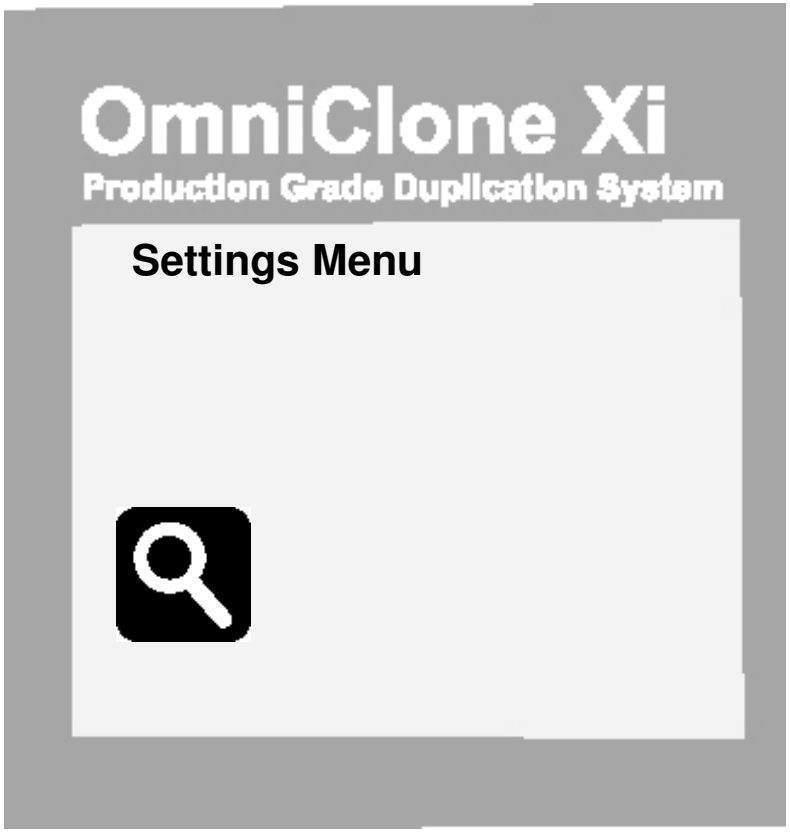
1. From anywhere in the menu system click the Set button to enter the Settings menu.
2. Press the Cloning Mode icon that appears in the upper left-hand corner. A list of the available cloning modes appears.
3. Press the "Scan" icon, the Scan Target settings screen will appear.



4. OMNIDIAGNOSTICS
Scan Target Mode - Part 4

Scan Target Mode – Step by Step

4. Adjust the "SPEED" setting as needed.
5. You may now double-click the "Start/Stop" button to start cloning. You will be warned that continuing will modify your Destination drive. If you are ready to do this, choose "Yes" to continue.
6. When finished, the Logicube Omniclone Xi™ will notify you and display a list of the scanned drives along with bad or weak sectors found on each drive.



4. OMNIDIAGNOSTICS
Repair Target Mode - Part 1

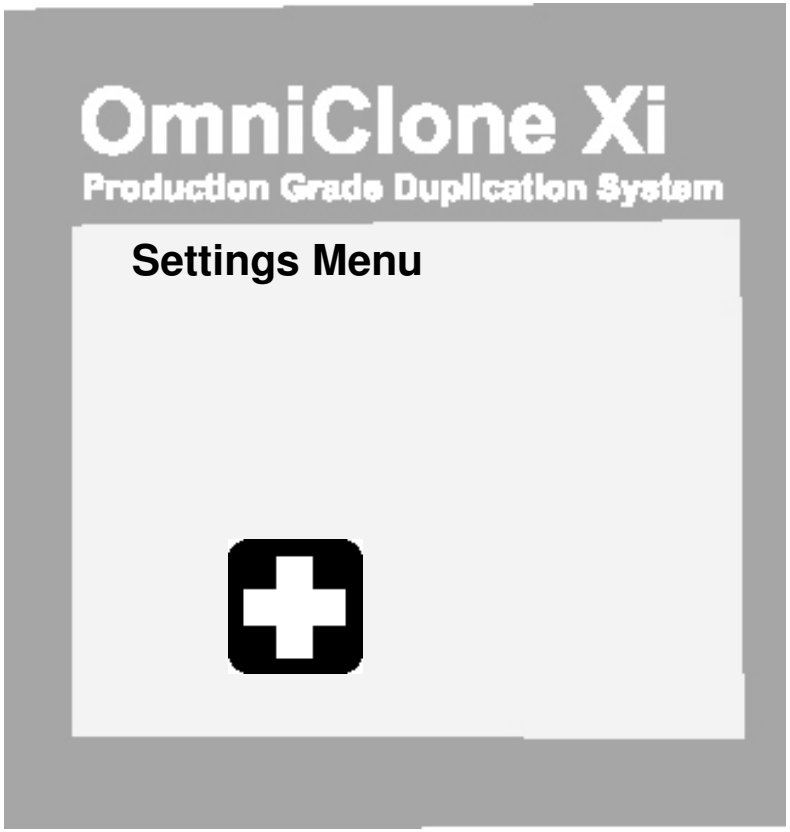
Repair Target mode scans Target drives using a Logicube exclusive algorithm in an attempt to repair all weak and bad sectors encountered. Please note that this process can take a long time.

The Repair Target operation directly manipulates the contents of the Target drive with no effort being made to retain the original data. It does not prompt the user when a bad sector is reallocated so any data on a repaired sector is lost.

4. OMNIDIAGNOSTICS
Repair Target Mode - Part 2

Repair Target Mode – Step by Step

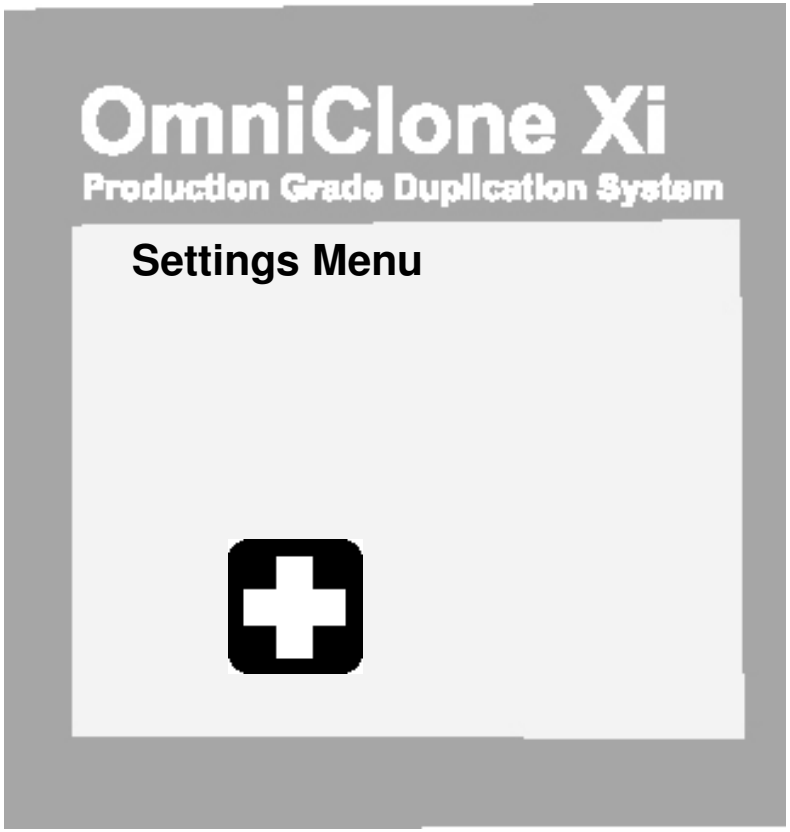
1. From anywhere in the menu system click the Set button to enter the Settings menu.
2. Press the Cloning Mode icon that appears in the upper left-hand corner. A list of the available cloning modes appears.
3. Press the "Repair" icon, the Repair Target settings screen will appear.



4. OMNIDIAGNOSTICS
Repair Target Mode - Part 3

Repair Target Mode – Step by Step

4. You may now double-click the "Start/Stop" button to start cloning. You will be warned that continuing will modify your Destination drive. If you are ready to do this, choose "Yes" to continue.
5. When finished, the Logicube Omniclone Xi™ will notify you and display a list of the scanned drives along with bad, weak and repaired sectors found on each drive.



4. OMNIDIAGNOSTICS
WipeClean Target Mode – Part 1

The WipeClean™ Target mode erases all data on the Target drives. This may be required when discarding drives that contain sensitive information to which you do not want others to have access, e.g. financial information, trade secrets, etc.

WipeClean™ writes a pattern over the whole Target drive 2 X n+1 times, where n is the selected number of iterations of all 0's and all 1's. The last pass then writes the chosen pattern to every byte of the drive.

For example, if you set the Value to "0xff" and the number of iterations (the value of n in the above formula) to 1, WipeClean™ will perform a total of three passes, first writing all 0's then again writing all 1's. Then one more pass will be made that leaves a repeating "FF" pattern.

4. OMNIDIAGNOSTICS
WipeClean Target Mode – Part 2

The following settings are used in configuring WipeClean™ Target mode:



•Passes – Determines how many passes of all 0's and all 1's are written to the drive. The default is 1 for compliance with DoD M-5220.



•Value – Select the value to be written on the last pass. The options are 0xf6, 0x00, 0xff, and Random (DoD default). (The Random setting will fill the Target drive with a pseudo random pattern.)



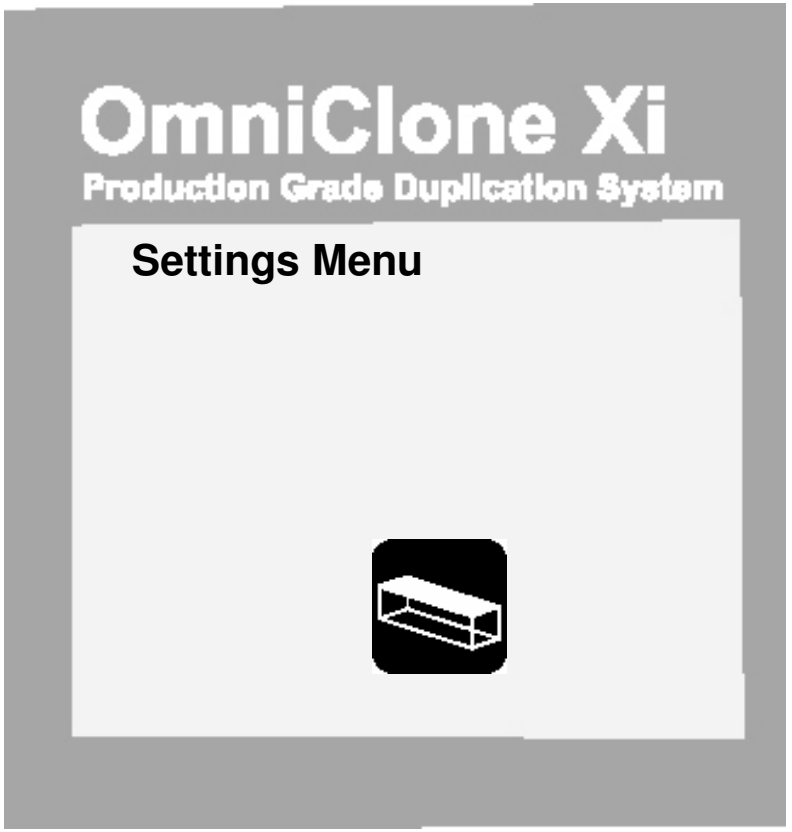
•Speed – The speed can be manually set from UDMA 5 to PIO-SLOW.

If no drive is attached to the Master position the unit will still wipe the Target drives, but it will run at speeds ranging from 60 – 100 MB/min.

4. OMNIDIAGNOSTICS
WipeClean Target Mode - Part 3

WipeClean Target – Step by Step

1. From anywhere in the menu system click the Set button to enter the Settings menu.
2. Press the Cloning Mode icon that appears in the upper left-hand corner. A list of the available cloning modes appears.
3. Press the "WipeOut" icon, the WipeClean Target settings screen will appear.



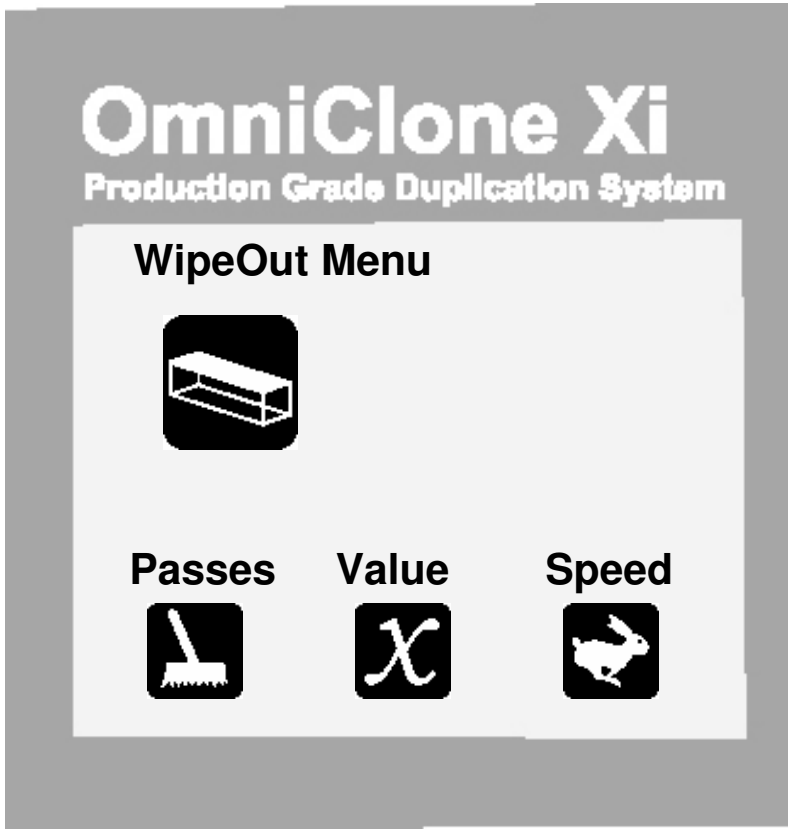
4. OMNIDIAGNOSTICS
WipeClean Target Mode - Part 4

WipeClean Target – Step by Step

4. Touch the "Passes" icon to set the number of passes. Use the numeric keypad to enter the number of passes. Press OK when finished.
5. Touch the "Value" icon to scroll through the different patterns.
6. Touch the "Speed" icon to choose the best speed, if necessary.

NOTE: The unit will automatically adjust itself to the best speed for the attached drives.

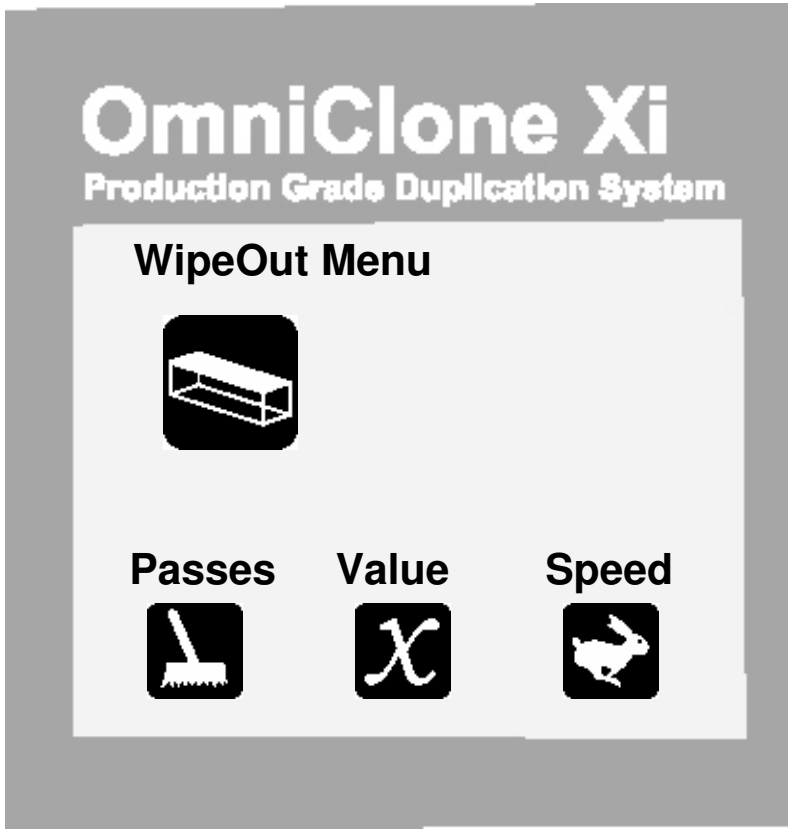
7. Press the Start/Stop button twice.



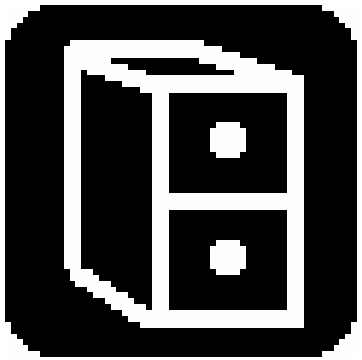
4. OMNIDIAGNOSTICS
WipeClean Target Mode - Part 5

WipeClean Target – Step by Step

8. A message will appear stating that portions of your Target drive will be overwritten. If you are prepared to continue, choose “<Yes>”. If you wish to abort the operation, choose “<No>”.
9. If “<Yes>” is chosen, a second message will appear stating that you are about to erase the Target. If you wish to continue, choose “<Yes>”. If you want to abort the operation, choose “<No>”.
10. If “<Yes>” is chosen, the WipeClean™ Target operation will begin and a status screen will appear.



5. DATABASE FUNCTIONS





5. DATABASE FUNCTIONS

The Logicube Database/Barcode Option gives your Omniclone Xi™ the ability to record vital cloning information and store it on the Compact Flash (CF) drive.

This information is stored in a format that is easily read by most database programs (i.e. Microsoft Excel, Microsoft Access, dBase, etc.).

The information is gathered from parts of the cloning session like drive firmware, cloning success and the Barcode Scanner.

NOTE: The Database/Barcode option can be purchased for your Omniclone Xi™ unit.

5. DATABASE FUNCTIONS

When the Logicube Database/Barcode option is purchased, it comes with the following items:

- **A Barcode Scanning Wand, (this plugs into the PS/2 connector in front of the Omniclone-Xi™).**
- **A User's Manual for the Barcode Scanner.**
- **A User's Manual for the DataBase™ option.**
- **A sheet that contains the code to unlock the Logicube DataBase™ option.**

5. DATABASE FUNCTIONS

The Logicube Database/Barcode option adds two files to the Compact Flash (CF) drive.

The two files are *Config.txt* and *Database.csv*.



5. DATABASE FUNCTIONS
Config.txt - Part 1

Config.txt is a list made up of the items below. It tells the Database function what to record from the cloning session.



[Title] - This is a user-entered name for the Config List. The name should be 18 characters or less.

IncludeHeaders – If this line is included, it tells the database to put headers as the first line of data in the Database.csv file.

UnitSN – This is the serial number of the Omniclone-Xi™ unit.

UnitFirmware – This is the Omniclone-Xi's current Firmware.

5. DATABASE FUNCTIONS
Config.txt - Part 2

Config.txt contents – (cont'd)



Scan1-UserEnteredName1 – This is the first line of information collected by the Barcode Scanner (i.e. Operator's Badge Number). The entered name needs to be 18 characters or less.

Scan2- UserEnteredName2 – This is the second line of data collected by the Barcode Scanner (i.e. Batch Number). The entered name needs to be 18 characters or less.

Scan3- UserEnteredName3 – This is the third line of information collected by the Barcode Scanner (i.e. Location Number). The entered name needs to be 18 characters or less.

5. DATABASE FUNCTIONS
Config.txt - Part 3

Config.txt contents – (cont'd)



Time – This records the time that the cloning session completed. The time comes from the Omniclone-Xi's own internal clock.

Date – This records the date from the unit's internal clock.

Cloning Modes for more information on how to set the internal clock.

MasterModel – This line records the Model Number of the Master drive.

MasterSerial – This line records the Serial Number of the Master Drive.

5. DATABASE FUNCTIONS
Config.txt - Part 4

Config.txt contents – (cont'd)



TargetModels – This line records the Model Number of each Target drive connected to the Omniclone-Xi.

TargetSerials - This line records the Serial Number of each Target drive connected to the Omniclone-Xi.

Mode – This line records the Cloning Mode used (i.e. Clever, Mirror, etc.)

Outcome – This records whether or not the cloning session was completed successfully. It will either say **PASS** or **FAIL**.

5. DATABASE FUNCTIONS
Database.csv - Part 1

The Logicube DataBase™ option writes all of the collected information to a file named *Database.csv*. The "csv" extension stands for "comma separated values" and is a common database format. It can be read by most database programs (i.e. Microsoft Excel, Microsoft Access, dBase, etc.). This file is stored on the Compact Flash (CF) drive.



5. DATABASE FUNCTIONS
Database.csv - Part 2

A typical .CSV file opened in a text editor looks something like this:




```
TEST, Date, MasterModel, TargetModels-1,
TargetModels-2, TargetModels-3, TargetModels-4,
TargetModels-5, TargetModels-6, TargetModels-7,
TargetModels-8, TargetModels-9, TargetModels-10,
Mode, Outcome, 5/18/05, WDC WD400BB-22HEA1,
ST380023AS, NA, NA, NA, NA, NA, NA, NA, NA, NA,
Mirror, SUCCESS
```

We can see from this example that a Master drive was cloned to a single Target drive on May 18, 2005. Mirror Clone mode was used and the cloning session completed successfully.

5. DATABASE FUNCTIONS
Database.csv – Part 3

NOTE: The *database.csv* file will continue to receive data from cloning sessions until it is renamed or deleted, at which point a new database.csv file will be created. If you need to change Config Lists, make sure that you rename or remove the old *database.csv* file from the CF drive.



5. DATABASE FUNCTIONS
Database Step by Step - Part 1

NOTE: This procedure goes from attaching the Barcode Scanner to choosing a Config List to running the cloning session and collecting the database.csv file. It is a basic rundown of the Database process. Details such as the menu options and the Barcode Scanner will be discussed later in the chapter.



5. DATABASE FUNCTIONS
Database Step by Step - Part 2

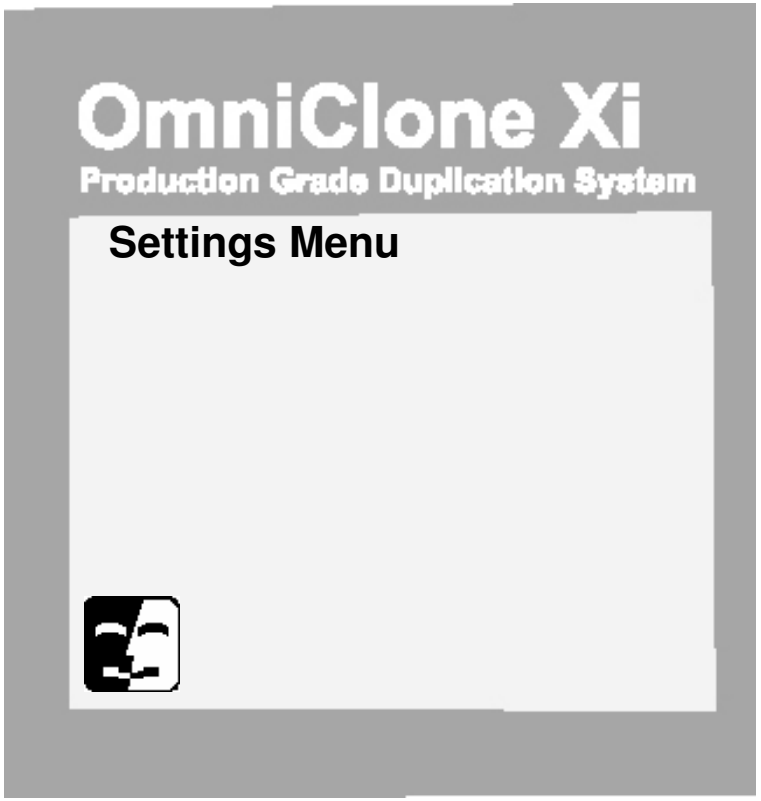
1. **Attach the Barcode Scanner to the PS/2 Port on the front of the Omniclone-Xi unit.**
2. **Insert the Compact Flash (CF) Drive in the CF Slot and power up the unit.**



5. DATABASE FUNCTIONS
Database Step by Step - Part 3

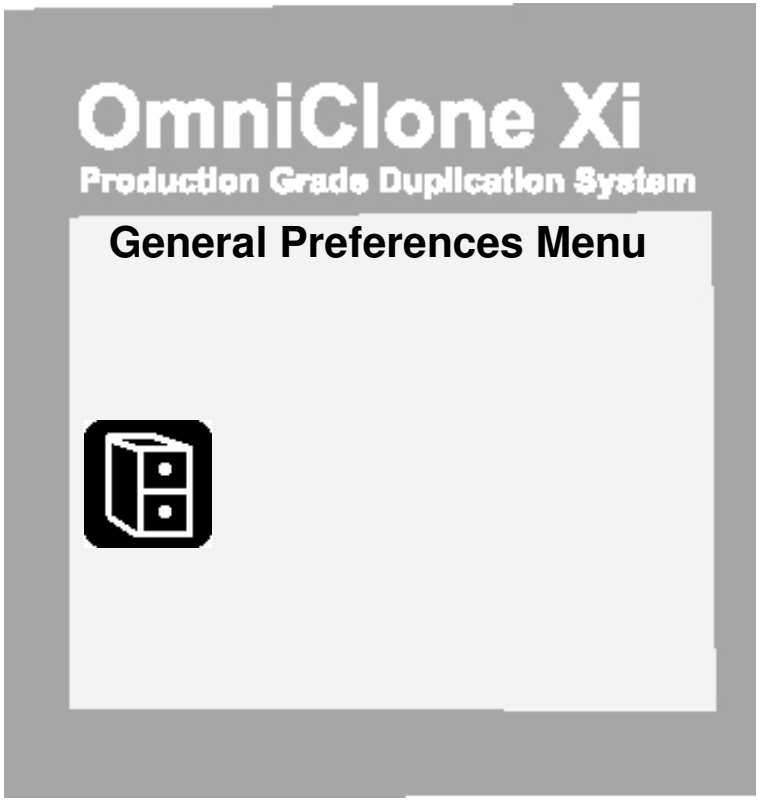
3. From the Main Screen, press the Set button.
4. Touch the General Preferences icon in the Lower left-hand corner of the screen.
5. Touch the Database icon. This will open the Database Settings Menu.

NOTE: If the Database/Barcode option is not enabled, a warning message will appear and the Database Menu will not open.



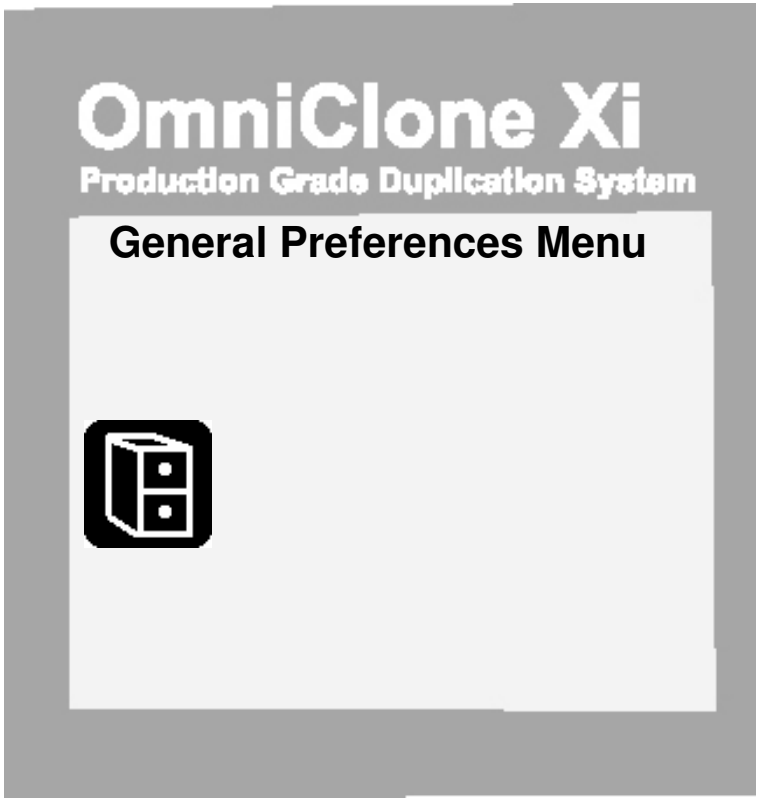
5. DATABASE FUNCTIONS
Database Step by Step - Part 4

6. Touch the Select Config icon. It will bring up all of the Config Lists that are stored in the Config.txt file that is on the CF Drive.
7. Touch the desired Config List. A check mark will appear next to it. Touch OK.
8. NOTE: Once a Config List is chosen, the name of the list will appear at the top of the Database Menu.
9. Touch the Database icon to set it to ON, (the default is OFF).



5. DATABASE FUNCTIONS
Database Step by Step – Part 5

10. **Touch the Back icon twice to go back to the Cloning Settings Menu. Change the settings as desired.**
11. **Press START/STOP to begin cloning.**



5. DATABASE FUNCTIONS
Database Step by Step - Part 6

12. When the cloning Session is finished, the unit will write data to the database.csv file. If one or more "Scan" lines are in the Config List, then the User will be prompted to use the Barcode Scanner.
13. When prompted, aim the Barcode Scanner at the Barcode to be read. Hold the scanner at an angle about 6 – 8 inches from the barcode. Hold down the trigger until the Scanner beeps.

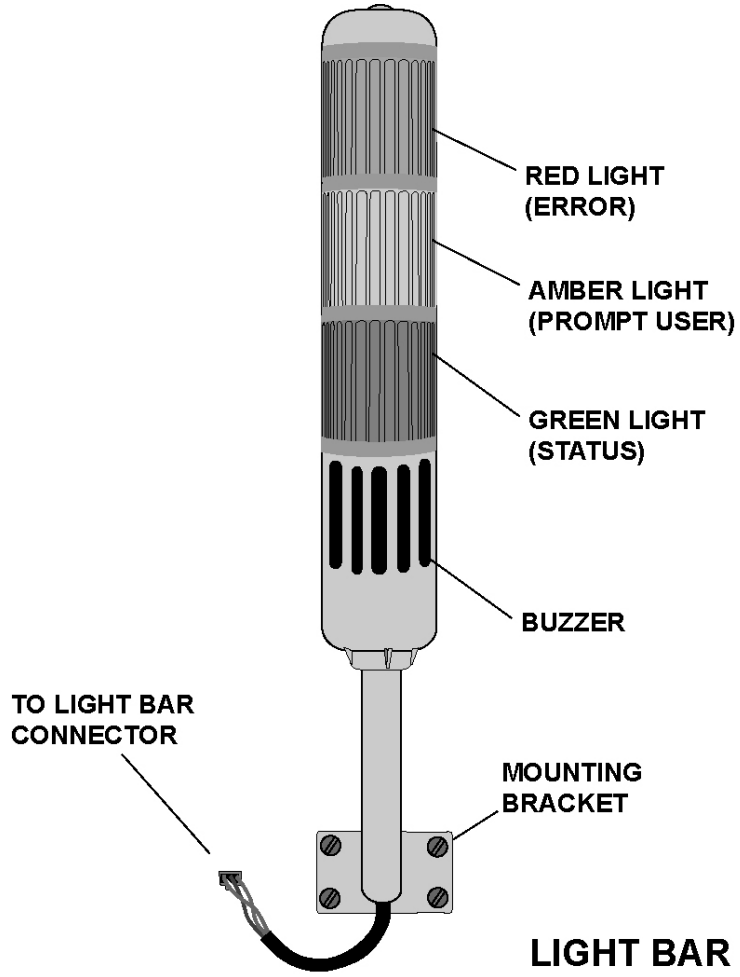


5. DATABASE FUNCTIONS
Database Step by Step - Part 7

14. **After the data is collected, the unit will stop with a "clone successful" message.**
15. **At this point the database.csv file can be copied from the CF drive and imported into the database program of your choice. Use USB Mode to gain access to your CF drive.**



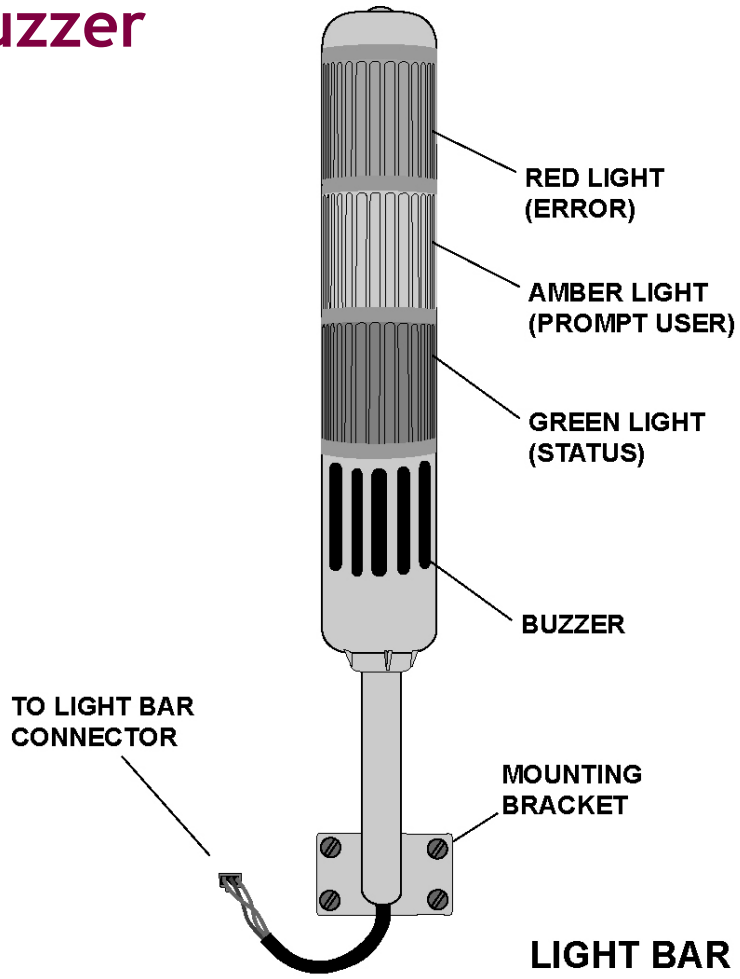
6. OTHER FEATURES



6. OTHER FEATURES
Light Bar Buzzer

The Light Bar now comes with an audible buzzer. It has one of two functions:

1. **Upon completion of a successful cloning session, the buzzer will emit a pleasant tone alerting the technician of it's success.**
2. **If the Omniclone-Xi unit stops with an error, the buzzer will emit a different tone to alert the technician.**



LIGHT BAR

6. OTHER FEATURES
Serial Cable Link - Part 1

The Omniclone-Xi can now be controlled remotely from a PC via a special serial cable.

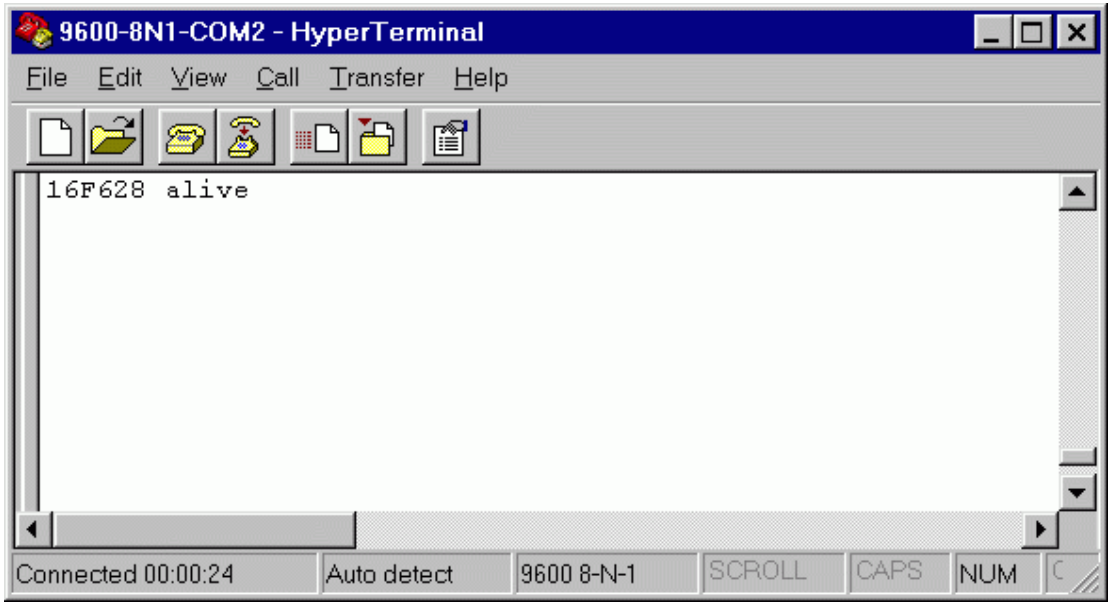
NOTE: This feature, like NTFS Clever Clone, Selective and Master Manager is an option that needs to be purchased in order to be enabled.



6. OTHER FEATURES
Serial Cable Link - Part 2

This feature comes with a proprietary serial cable that connects the Omniclone-Xi to a PC.

The user can control the Omniclone-Xi from the PC via Hyperterminal.



6. OTHER FEATURES
Serial Cable Link - Part 3

From the laptop, the user can send a variety of commands to the Omniclone-Xi such as:



- **Start/Stop a cloning session.**
- **Set unit to Mirror Clone mode.**
- **Get constant progress info of a cloning session.**
- **Connect Omniclone-Xi to PC via USB.**
- **Create an end-of-session report.**
- **Get unit information such as software/firmware version.**

6. OTHER FEATURES
USB Connection

The Omniclone-Xi has a USB port on the back. This allows the unit's Compact Flash to be accessed by a PC. This allows the user to:

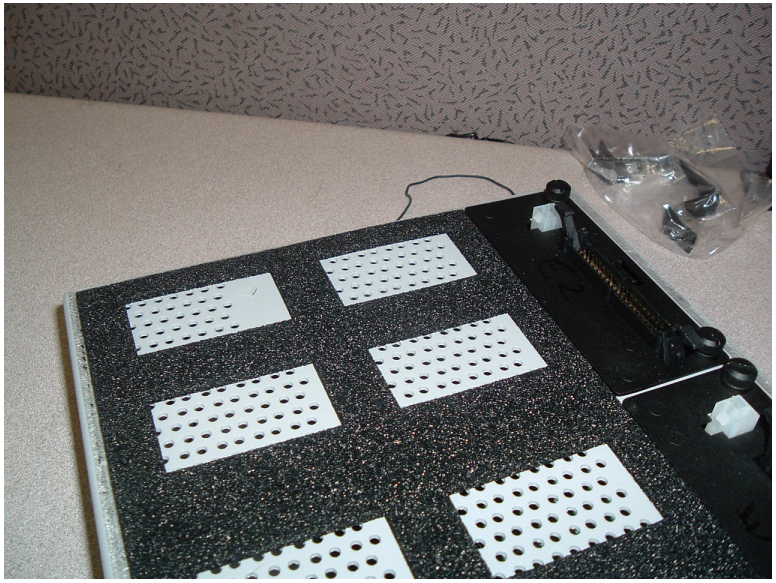
- **Load software updates to the CF.**
- **Copy Database reports to the PC.**
- **Modify .ini files such as Config.txt**



6. OTHER FEATURES
Verification Station

The Omniclone-Xi now has a new piece of hardware called the Verification Station. This new drive station is able to scan cloned drives with a 128-bit MD5 Checksum!

The Verification Station is also able to function as a normal drive station for cloning drives.

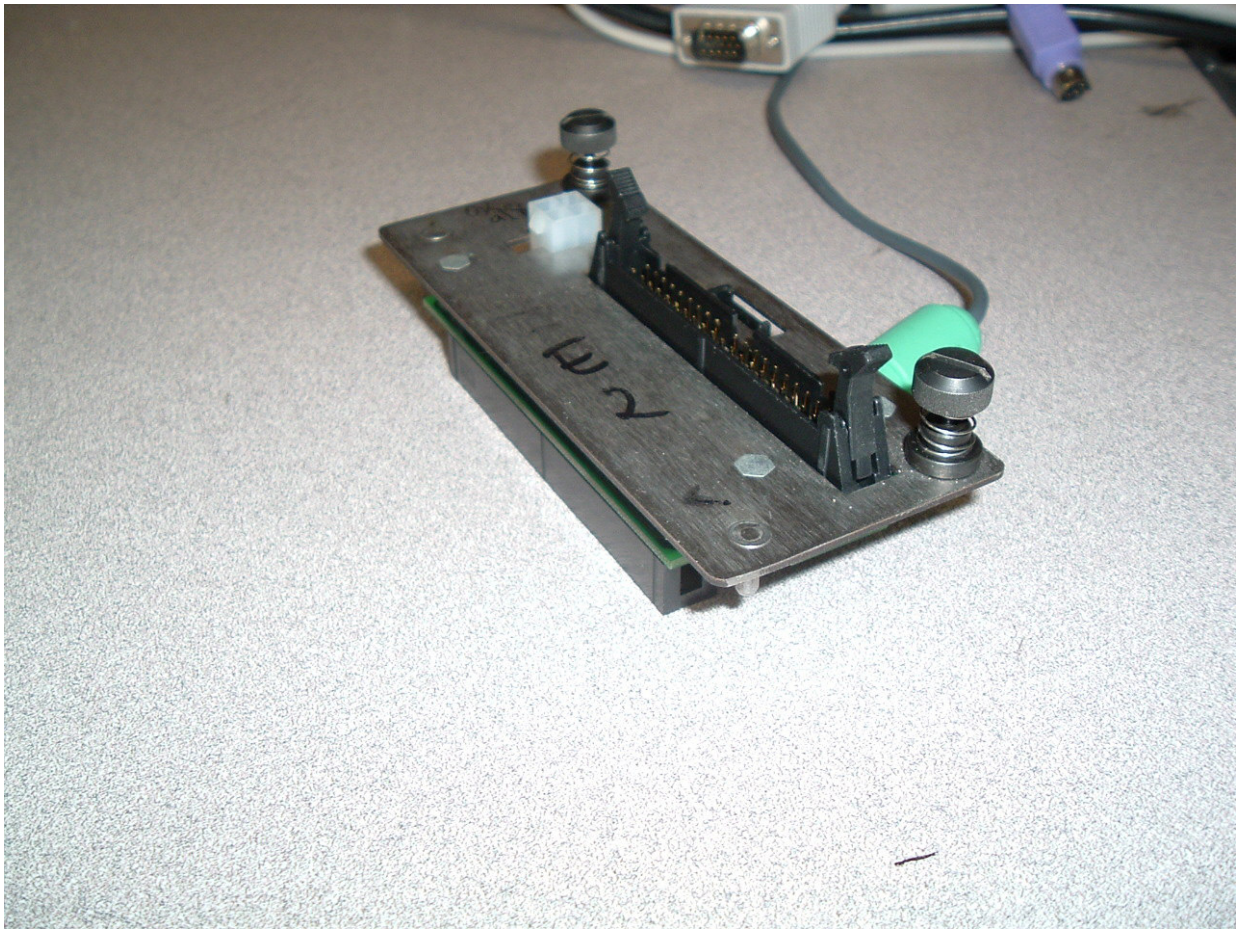


6. OTHER FEATURES
Verification Station

Using the Verification Station is as easy as these simple steps:

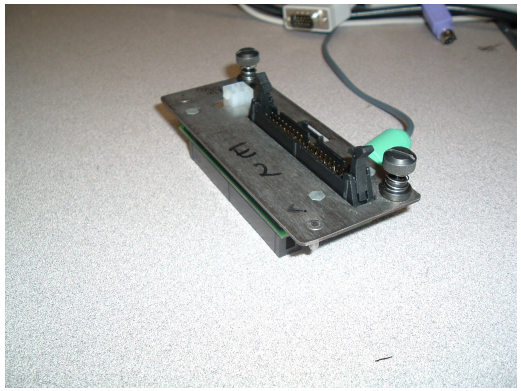
1. **Replace the Omniclone-Xi's Target Drive Stations with Verification Stations.**
2. **Obtain the MD5 Hash value of the Master Drive**
3. **Add the Master's MD5 value to a file on the Compact Flash called *checksum.txt*.**
4. **Clone the Target drives with Mirror Clone mode.**
5. **After cloning, run a new mode called "MD5 Checksum".**
6. **The Verification Stations will scan the Target drives and return a PASS/FAIL message.**

7. USER REPLACEABLE HARDWARE



7. USER REPLACEABLE HARDWARE

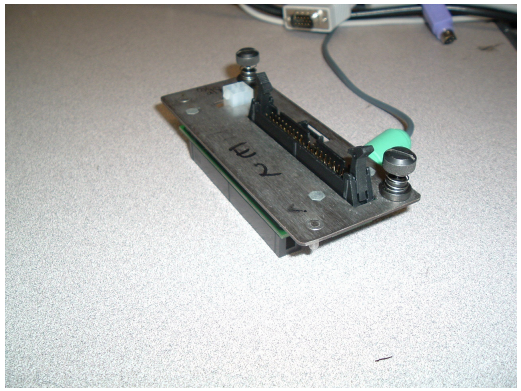
The Omniclone-Xi has two major pieces of hardware that can be replaced by the user.



- **The first is the Drive Stations.**
- **The other is the Power Supply.**

7. USER REPLACEABLE HARDWARE

DRIVE STATIONS



Drive stations are easily removed by loosening two thumb screws and pulling the Drive Station unit straight off the Omniclone-Xi.

This allows bad drive Stations to be replaced without sending the entire Omniclone-Xi unit in for repair.

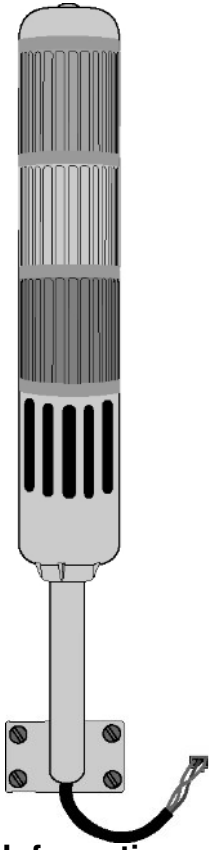
This also allows the user to replace the standard Drive Station with a Verification Station or other Stations that we may offer in the future.

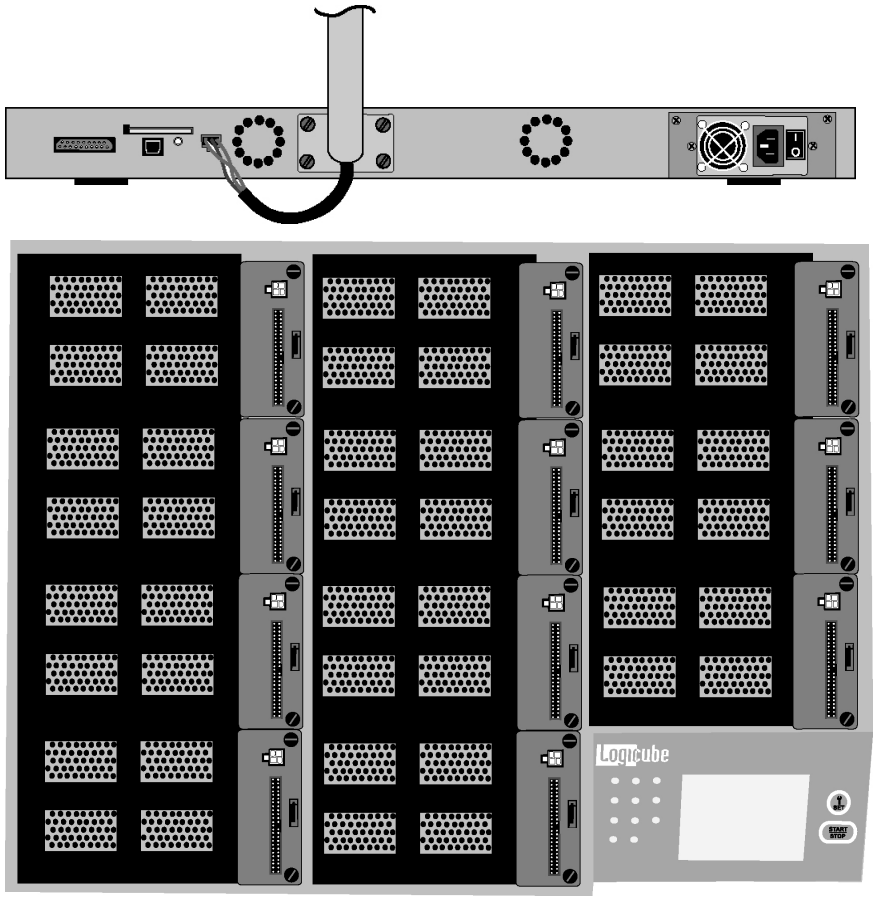
7. USER REPLACEABLE HARDWARE

The power supply is located on the bottom of the Omniclone-10Xi and 5Xi. It can be replaced by the user.



QUESTIONS AND DEMO





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