



# KanguruClone 4 M.2 NVMe SSD Duplicator

## User Manual

Model no.:  
KCLONE-4NVME

## **Notices and Information**

### **Please be aware of the following points before using your KanguruClone**

Copyright© 2021, Kanguru Solutions. All rights reserved.

Windows is registered trademarks of Microsoft Inc. Apple® and Macintosh® are registered trademarks of Apple Computer Inc. IBM and OS/2 are registered trademarks of the International Business Machines Corporation. All other brand or product names are trademarks of their respective companies or organizations.

Kanguru Solutions will not be held responsible for any illegal use of this product nor any losses incurred while using this product. The user himself is responsible for the copyright laws, and is fully responsible for any illegal actions taken.

### **Customer Service**

To obtain service or technical support for your system, please contact Kanguru Solutions Technical Support Department at 508-376-4245, or visit [www.Kanguru.com](http://www.Kanguru.com) for web support.

### **Legal notice**

In no event shall Kanguru Solutions' liability exceed the price paid for the product from direct, indirect, special, incidental, or consequential software, or its documentation. Kanguru Solutions offers no refunds for its products. Kanguru Solutions makes no warranty or representation, expressed, implied, or statutory, with respect to its products or the contents or use of this documentation and all accompanying software, and specifically disclaims its quality, performance, merchantability, or fitness for any particular purpose. Kanguru Solutions reserves the right to revise or update its products, software, or documentation without obligation to notify any individual or entity.

### **Export Law Compliance**

Regardless of any disclosure made to Kanguru Solutions pertaining to the ultimate destination of the specific Kanguru product, you warrant that you will not export, directly or indirectly, any Kanguru product without first obtaining the approval of Kanguru Solutions and the appropriate export license from the Department of Commerce or other agency of the United States Government. Kanguru Solutions has a wide range of products and each product family has different license requirements relative to exports.

### **FCC Compliance Statements**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the Distance between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

---

**TABLE OF CONTENTS**

<b>1. INTRODUCTION .....</b>	<b>5</b>
1.1 Package Contents.....	5
1.2 Specifications .....	5
1.3 M.2 SSD Compatibility .....	6
<b>2. GETTING TO KNOW YOUR DUPLICATOR .....</b>	<b>7</b>
2.1 Hardware Setup .....	7
2.2 Parts and Appearance .....	8
2.2.1 Front View.....	8
2.2.2 Side View .....	8
2.2.3 Rear View.....	8
2.3 Calibrating the Touchscreen .....	9
2.4 Connecting NVMe Drives.....	10
<b>3. GENERAL OPERATION .....</b>	<b>12</b>
<b>4. COPY AND COMPARE MODES .....</b>	<b>13</b>
4.1 Full.....	13
4.2 Brief.....	13
4.3 Ratio .....	13
4.4 Resize .....	13
4.5 Image .....	14
4.5.1 Create a Storage Center Drive .....	14
4.5.2 Capture a Master Drive as an Image File.....	14
4.5.3 Copy or Compare From an Image File .....	14
<b>5. OTHER OPERATIONS.....</b>	<b>15</b>
5.1 Erase .....	15
5.1.1 Erase Modes.....	15
5.2 Verify .....	15
<b>6. SETTINGS .....</b>	<b>16</b>
6.1 Reset to Default .....	16
6.2 Copy Settings.....	16
6.3 Ratio Settings.....	16
6.4 Erase Settings .....	17
6.5 Option Settings .....	17
6.6 Advanced Settings .....	18
6.7 Network Settings .....	18

<b>7. NETWORK ACCESS (WINDOWS ONLY).....</b>	<b>19</b>
7.1 Configuring the Maxi Management Software.....	19
7.2 Maxi Functions.....	21
7.2.1 Copy.....	21
7.2.2 Compare.....	21
7.2.3 Verify.....	21
7.2.4 Erase.....	21
7.2.5 Stop.....	21
7.2.6 Refresh Files.....	21
7.2.7 Brief Load.....	22
7.2.8 Full Load.....	22
7.2.9 Restore Image to Client Source Devices.....	23
<b>8. FAQ.....</b>	<b>24</b>
<b>9. WARRANTY INFORMATION.....</b>	<b>25</b>
<b>10. TECHNICAL SUPPORT.....</b>	<b>26</b>

# 1. INTRODUCTION

Congratulations on your purchase of the KanguruClone 4 M.2 NVMe Duplicator from Kanguru Solutions.

The KanguruClone 4 M.2 NVMe Duplicator is a high speed, stand-alone M.2 NVMe disk duplicator that can simultaneously create up to 4 copies. With ultra fast copy speeds of up to 12GB/min and a full touch screen interface, the KanguruClone is able to handle all your NVMe duplicating needs.

## Features

- √ Supports all standard M.2 NVMe SSDs. Capacity and brand independent.
- √ Full-color 4.3" TFT touch screen
- √ Up to 12GB/min transfer rates
- √ One-year Standard Warranty: one-year parts and 90 day labor warranty.
- √ Clones any operating system: including Window, Linux and Mac.
- √ Multiple modes of operation:
  - **Full** - Access all sectors.
  - **Brief** - Access only sectors containing data. Compatible with major file systems.
  - **Resize** - Master and Target drives with different capacities.
  - **Ratio** - Access a defined percentge of the Master.
  - **Image** - Access disk image files.
- √ Powerful erase and disk wipe features (compliant with DoD 5220.22-M)
- √ Detailed and downloadable system logs
- √ Supports HPA (Host Protection Area) and DCO (Device Configuration Overlay)
- √ Network connectivity using the provided MAXI software

## 1.1 Package Contents

If any of the following items are missing, please call Kanguru Solutions' Tech Support department at: (508) 376-4245, extension 2 and replacement parts will be shipped to you ASAP.

- KanguruClone 4 M.2 NVMe Duplicator
- External Power Adapter and Power Cable
- CD with User Guide and MAXI software

## 1.2 Specifications

KanguruClone 4 NVMe	
Interface	M.2 M-keyed
Drive Support	PCIe based NVMe SSD
Display	Full-color 4.3" TFT touch screen
Dimensions	10" x 7.5" x 2"
Weight	2.5 lbs.
Power	AC Input 100-240V ~2A DC Output +12V/ 5A, 60W
Operating Temperature	41°F ~ 122°F
Relative Humidity	15% ~ 90%

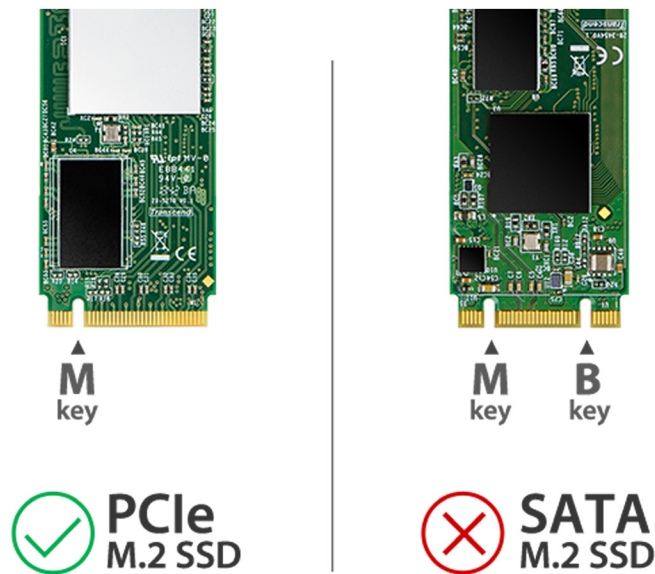
### 1.3 M.2 SSD Compatibility

KanguruClone M.2 NVMe Duplicators support PCIe M.2 SSDs, commonly known as NVMe SSDs. SATA M.2 SSDs are NOT supported.

Both SATA M.2 and PCIe M.2 SSDs use a similar physical connector. It is easy to confuse the two, so you should always check your SSDs' technical specifications to verify that they are either PCIe M.2 or NVMe before using them with the duplicator.

Alternatively, you can visually identify whether an M.2 SSD is SATA or PCIe by inspecting the physical connector. M.2 SSDs are “keyed” to prevent the connector from being inserted into an incompatible socket.

- Supported PCIe M.2 / NVMe SSDs are M-keyed
- Unsupported M.2 SSATA SSDs are B+M-keyed



**Note:** If you need to duplicate M.2 SATA SSDs, please contact Kanguru sales and inquire about a KanguruClone SATA duplicator with M.2 SATA adapters.

## 2. GETTING TO KNOW YOUR DUPLICATOR

### 2.1 Hardware Setup

1. Place the KanguruClone where there is proper ventilation. Avoid using the KanguruClone in environments with high temperatures.
2. Make sure that sufficient power is supplied to the KanguruClone. Incorrect power will cause faulty operation. It is highly recommended that you use a UPS (uninterruptible power supply) with the KanguruClone.
3. You are now ready to begin using your KanguruClone. To begin, turn on the unit by flipping the power switch located on the back panel and pressing the Power On button on the front of the duplicator.

#### Things to remember

- Make sure that sufficient power is supplied to the KanguruClone. Incorrect power will cause faulty operation. It is highly recommended that you use a UPS (uninterruptible power supply) with the KanguruClone.
- The KanguruClone is powered by an internal power adapter that is controlled by a rocker switch located at the rear of the duplicator.
- KanguruClone M.2 NVMe Duplicators support PCIe M.2 SSDs, commonly known as NVMe SSDs.
- SATA M.2 SSDs are NOT supported.
- The KanguruClone supplies power to all drives during a session. There is no need to connect an external power source to the drives.

**Note:** the drives are not powered until you start a copy operation.

- It is OK to connect and disconnect Master or Target drives while the KanguruClone is powered on. However, do NOT connect or disconnect drives while any operation is running or is in progress. The green LED light will blink to indicate that the unit is cloning or operating.
- Connect all Master and Target drives before you execute an operation.

## 2.2 Parts and Appearance

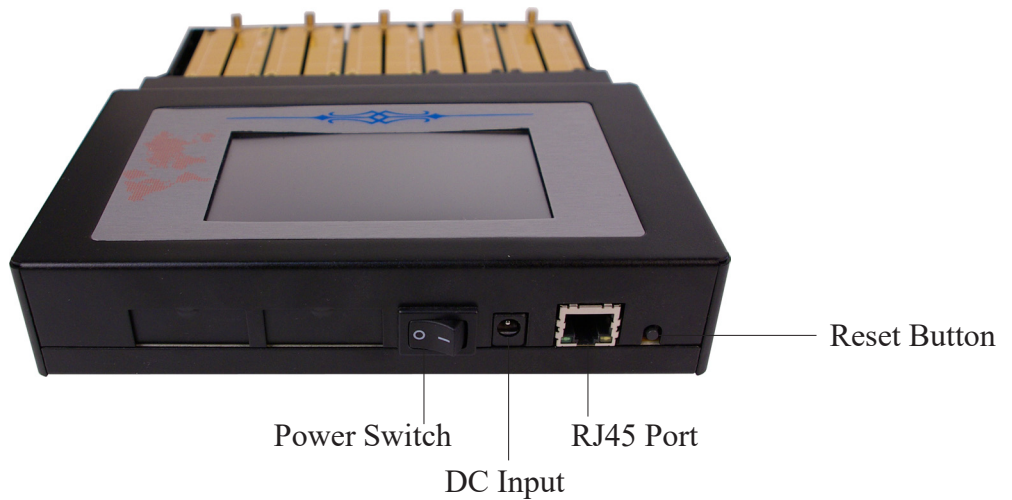
### 2.2.1 Front View



### 2.2.2 Side View



### 2.2.3 Rear View





## 2.3 Calibrating the Touchscreen

One of the main features of the KanguruClone 4 M.2 NVMe Duplicator is the touchscreen user interface. If you are having issues with the accuracy of the touchscreen inputs (e.g. unable to access items to the edge of screen) your touchscreen may require re-calibration.

To calibrate your touchscreen:

1. Power on the duplicator
2. Wait for the boot screen that displays the Kanguru Logo and the device firmware and Mac address. When this screen appears, tap the center of the touchscreen.



3. The calibration screen appears. Using the finger that you normally use to operate the duplicator, tap the crosshair located in the top left corner, top right corner, bottom right corner, bottom left corner, and then center of the screen.

The touchscreen has now been re-calibrated.

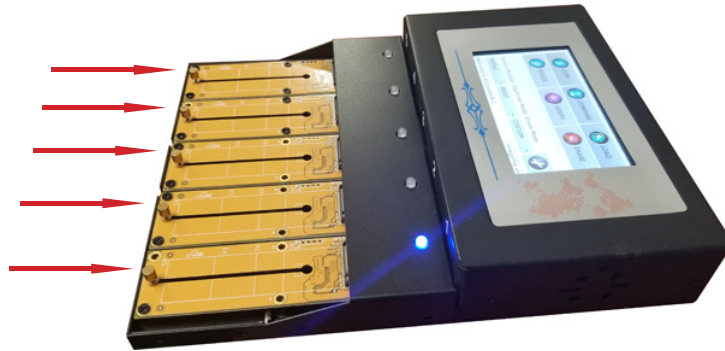
If you are still having issues with accurately tapping the touchscreen, you can also use a stylus to tap the screen.

## 2.4 Connecting NVMe Drives

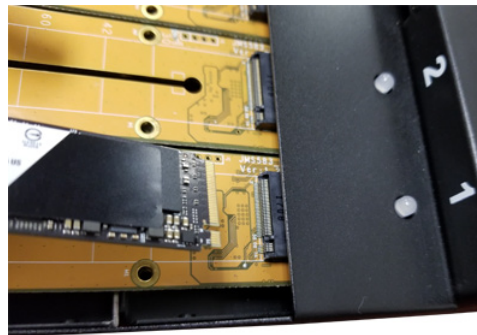
The KanguruClone 4 NVMe supports NVMe SSDs that have an M.2 M-keyed connector. The duplicator only supports drives that run on the PCIe protocol, so M.2 SATA drives are not supported.

To connect an NVMe solid state drive to the KanguruClone 4 NVMe:

1. Make sure all Drive Locking Pins are pushed all the way to the end of the duplicator.



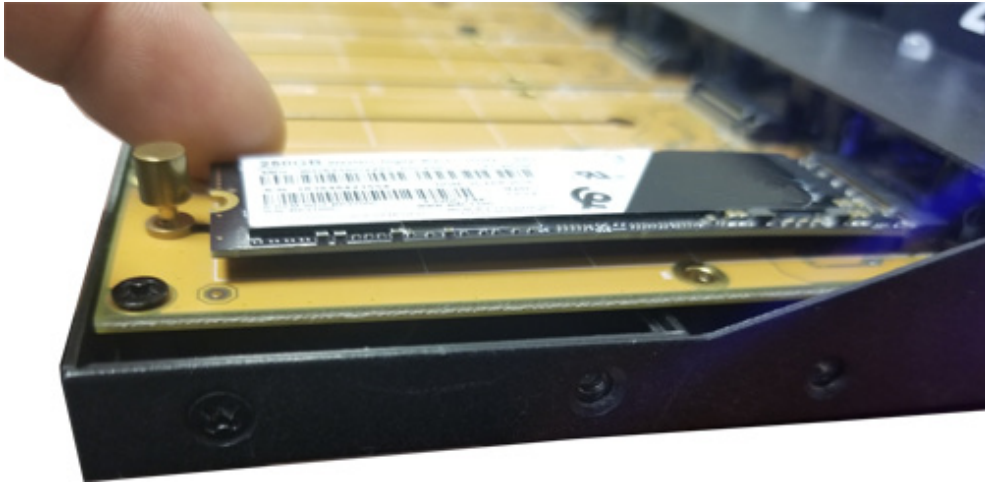
2. Hold the drive with the M-key notch aligned to the right side.



3. Insert the drive into one of the duplicator's M.2 ports at about a 30° angle. **Note:** you can identify the Source port location by the blue LED indicator.



4. Press down on the back of the drive so that it lies parallel with the duplicator. There should be a few mm space between the drive and the duplicator.



5. Slide the Drive Locking Pin into the notch located at the rear of the NVMe drive.

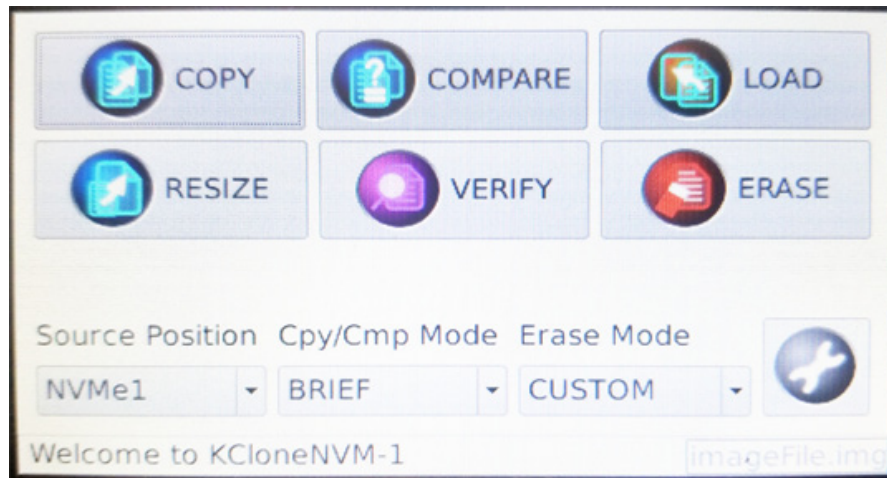


Repeat for Target drives until all drives are connected.

It is OK to connect and disconnect Master or Target drives while the KanguruClone is powered on. However, do NOT connect or disconnect drives while any operation is running or is in progress. The green LED light will blink to indicate that the unit is cloning or operating.

### 3. GENERAL OPERATION

All operation of the KanguruClone 4 NVMe is done using the touch-screen display. Once the duplicator boots up, you see the Main Menu screen:



All the main functions and configurations can be accessed through the Main Menu.

- **Copy** : Copy the data from the drive connected to the Source Position to all other drives.
- **Resize** : Resize Copy is used specifically when copying drives that are of different capacities.
- **Compare** : Compare data on the drive connected to the Source Position to all other drives.
- **Verify** : Tap to check all I/O ports to verify that all connected drives can be read.
- **Load** : Capture an image of a Master drive to a Storage Center drive.
- **Erase** : Erase all data on connected Target drives.

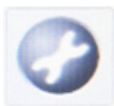
**Source Position** - Designate the Source port. A blue LED indicates the Source port. By default the Source position is set to NVMe1.

**Cpy/Cmp Mode** - Configure how data is accessed during Copy and Compare operations.

- **Full** : Access all sectors, sector by sector. Supports all major OS formats and file systems.
- **Brief** : Access only sectors that contain data, skipping blank sectors.
- **Image** : Access image files stored on a Storage Center drive.
- **Ratio** : Copy a defined percentage of the Master drive.

**Erase Mode** - Select the Erase mode.

- **Custom** : Perform a customized erase.
- **Quick** : Perform an erase that zeroes out the partition table.
- **Full** : Perform an erase that zeroes all sectors on the drive.
- **Wipe** : Perform a multi-pass erase.



- Tap to access the Settings Menu.

## 4. COPY AND COMPARE MODES

The KanguruClone can copy data from a Master drive to Target drives in one of five modes: FULL, BRIEF, RATIO, RESIZE, and IMAGE.

After a copy has been performed, you can manually run a Compare operation to check the data on the Master drive against the data on the Target drives, to ensure that the all data was copied successfully.

**Note:** Comparing drives that have been copied using RESIZE mode will often fail.

### 4.1 Full

FULL mode mode copies/compares drives sector by sector from the Source to the Target(s), and supports all OS formats (DOS/Windows/Mac/Linux) and file systems.

This mode is the slowest copy mode but the most compatible with the highest rate of success.

### 4.2 Brief

Brief mode copies/compares only the sectors that contain data, skipping any blank sectors (including information hidden in sub channels).


This is the typically the fastest copy mode, but only supports specific file systems.

Brief mode supports the following file systems: FAT12/16/32/64, exFAT, NTFS, HFS, HPFS, EXT1/2/3/4, XFS, GPT, LVM, UFS, HPA, RIEF

### 4.3 Ratio

The Ratio mode allows you to copy or compare a defined percentage of the Master drive.

The Master drive is divided in 1000 units. You must define the beginning and ending percentages before using this operation. To define the percentages:

1. Tap the **Settings icon**  to enter the Setup Menu
2. Tap on the 'Ratio' tab at the top of the screen.
3. Define the Ratio Head and Tail percentages by tapping the up and down buttons, or by tapping in the field and manually typing in the defined value.

### 4.4 Resize

Resize copy is used to copy between Master and Target drives of different capacities. When duplicating in Resize mode, Target drives should all be the same capacity.

Resize copy supports the following file systems: FAT, FAT32, NTFS. If the Source is not formatted as a supported file system then the duplicator will automatically switch to Disk mode.

Comparing drives after a Resize copy will usually fail.

## 4.5 Image

Image mode allows you to access image files saved on a Storage Center drive.

A Storage Center drive is an NVMe drive that has been formatted to store image files of Master drives, providing a convenient way to archive and load commonly used Master drives as images files.

### 4.5.1 Create a Storage Center Drive

To turn a normal NVMe drive into a Storage Center drive, you only need to format it as NTFS.

Once the format has completed successfully, this drive can now be used as a Storage Center drive. You can capture and load Master image files to and from the Storage Center drive.

### 4.5.2 Capture a Master Drive as an Image File

You can use the duplicator to capture an image file of a Master drive onto a Storage Center drive.

To capture an image file of a Master drive on the Storage Center drive:

1. Connect the Storage Center drive to the Source port.
2. Connect the Master drive to any other port.
3. From the Main menu, set **Cpy/Cmp Mode** to 'IMAGE'.
4. Tap **LOAD**.

Enter a name for the image file and then tap the OK button to begin the operation. Once complete, an image file of the Master drive is saved on the Storage Center drive .

### 4.5.3 Copy or Compare From an Image File

After you have captured an image file on the Storage Center drive:

1. Connect the Storage Center drive to the Source port. Connect any Target drives.
2. From the Main menu, set **Cpy/Cmp Mode** as 'Image'.
3. Tap **Copy** or **Compare** .
4. When the duplicator recognizes a Storage Center drive connected to the Source port it will ask you to select an image file. Tap on the image file name to select it.

## 5. OTHER OPERATIONS

Besides the Copy and Compare modes, the KanguruClone Hard Drive Duplicator has several additional operations that are incredibly useful, including ERASE and VERIFY. The following chapter will cover these operations.

### 5.1 Erase

To erase drives connected to the duplicator:

1. Connect the drives to be erased to the duplicator. Note: By default, the Erase operation is not performed on the drive connected to the Source port. This behavior can be changed in the Settings menu (see section 6.5 Option Settings on page 17)
2. From the Main menu, configure the **Erase Mode**.
3. Tap **ERASE** .

#### 5.1.1 Erase Modes

The KanguruClone duplicator supports multiple Erase modes that you can use depending on how securely you need the data erased.

- **CUSTOM** - Performs a custom erase based on settings defined in the Settings menu (see section 6.4 Erase Settings on page 17)
- **QUICK** - Overwrite the partition table. This is the quickest erase mode, but least secure.
- **FULL** - Overwrite all sectors. This is a slower erase mode but more secure.
- **WIPE** - Perform a multi-pass erase. This is the slowest erase mode, but most secure.
  - **Pass 1:** Overwrite all addressable locations with binary zeroes.
  - **Pass 2:** Overwrite all addressable locations with binary ones.
  - **Pass 3:** Overwrite all addressable locations with a random bit pattern.
  - Verify the final overwrite pass.

### 5.2 Verify

Verify checks all ports and verifies that all connected devices can be read. To verify all drives connected to the duplicator:

1. Connect the drives to the duplicator.
2. From the Main menu, tap **Verify** .

## 6. SETTINGS

The Settings menu can be accessed by tapping the Settings icon  located at the bottom right of the Main menu.

### 6.1 Reset to Default

You can revert all settings to the factory defaults by tapping on the Reset to Default button located at the bottom of the Settings menu.

### 6.2 Copy Settings

- Before Copy
  - Erase (Write 0) - Before any Copy begins, automatically erase all target drives by overwriting all addressable locations with zeroes. Disabled by default.
- After Copy
  - Compare - After any Copy completes, automatically compare the data on the Master to the Targets. Disabled by default.
  - Verify - After any Copy completes, automatically verify that the Target drives are readable. Disabled by default.
- Force Read - Enable or disable error skipping during any copy.
  - Enabled: the duplicator will automatically skip any bad sectors encountered when reading the Master and write a zero in its place on the Target.
  - Disabled (default): the duplicator will cancel the current process when an error is detected.
- Check Method - Configure whether the system checks for a matching CRC32 between the Master and Target drives. When enabled, the duplicator will automatically check the hash of the Master against the Target drives after a copy completes. Default: None.
- Retry Times - Configure the number of times that the duplicator retries sending general error handling commands when it encounters an error before failing. Default: 0.

### 6.3 Ratio Settings

The Master drive is divided in 1000 units. You must set the beginning and ending percentages before performing Ratio Copy or Compare.

- Ratio head - Define the ratio head start and end boundaries. Default 0/1
- Ratio tail - Define the ratio tail start and end boundaries . Default 0/0



## 6.4 Erase Settings

- **Methods** - Configure a CUSTOM erase methodology. Multiple methods can be selected.
  - **Write 0:** Overwrite all addressable locations with binary zeroes. Enabled by default.
  - **Write 1:** Overwrite all addressable locations with binary ones. Disabled by default.
  - **Write Random Pattern:** Overwrite all addressable locations with a random bit pattern. Disabled by default.
  
- **After Erase**
  - **Compare:** Automatically compare data on connected drives after an erase is performed. Disabled by default.
  - **Verify:** Verify the final overwrite pass after an erase is performed. Disabled by default.
  
- **Cycles** - Select the number of cycles an erase function is performed. Default: 1

## 6.5 Option Settings

- **Capacity Check** - Check that the capacity of Target drives are at least equal to or larger in capacity as the Master drive. Enabled by default.
  
- **Quick Erase** - Zero the partition table on Target drives. Disabled by default.
  
- **Erase Source Port** - Allow the drive connected at the Source position to be erased. Disabled by default.
  
- **Save Mode** - Save the current setting configuration.

## 6.6 Advanced Settings

- System Time - Set the current date and time and then tap the Save button.
- Logs
  - Save - Enable to allow system logs to be saved in the duplicator's flash memory.
  - Dump to USB0 - Tap to save the system logs to a USB flash drive connected to the duplicator's USB port.
- Update - Update the firmware on your duplicator.
- Touch Screen - Tap to adjust touch screen calibration. Refer to section 2.3 Calibrating the Touchscreen on page 8.
- Language - The duplicator supports English and Chinese language. Default: English
- Mute - Turn the duplicator sound on and off. Disabled by default.
- Proc Music - Turn the music that plays while the duplicator is working on and off. Enabled by default.

## 6.7 Network Settings

Network settings must be configured if you are using the Maxi PC software to access the Duplicator over a LAN. For more information about using the duplicator's network capabilities, refer to chapter

The default Machine ID is "MX4NVM-1" and can be changed to allow for multiple KanguruClone duplicators to appear on the same network.

If "Enable Server Control" is enabled, a host PC running the Maxi software on the same LAN as the KanguruClone will be able to connect to the duplicator.

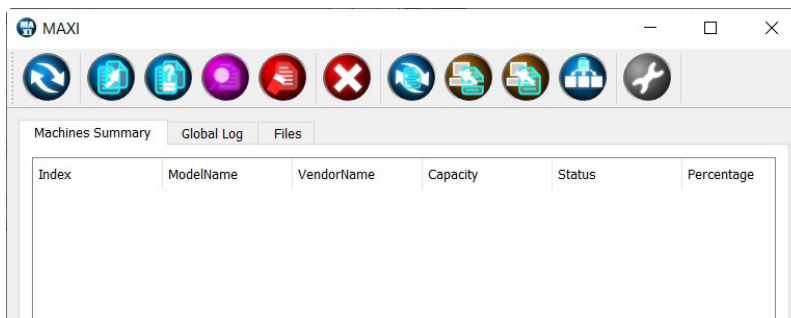
## 7. NETWORK ACCESS (WINDOWS ONLY)

The Maxi Management software allows you to connect and manage a duplicator with a PC. Maxi Management software (henceforth referred to as Maxi) is only compatible with Windows PCs.

To make the duplicator visible to a network, connect the duplicator to a network router via the RJ45 port on the back of the unit and then make sure “Enable Server Control” is selected in Network settings (see section 6.7 Network Settings on page 18). You can now manage the duplicator on a computer running Maxi over a LAN.

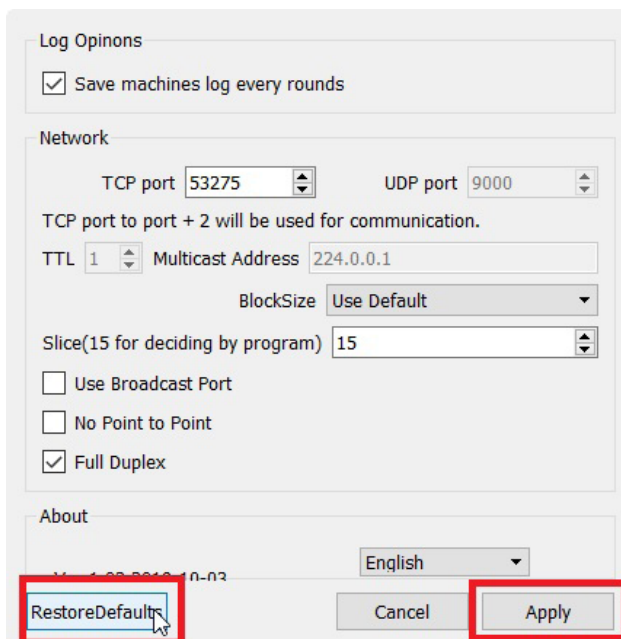
### 7.1 Configuring the Maxi Management Software

1. Run MaxiSetup.exe and follow the instructions to install Maxi.
2. Run Maxi.exe to launch Maxi.

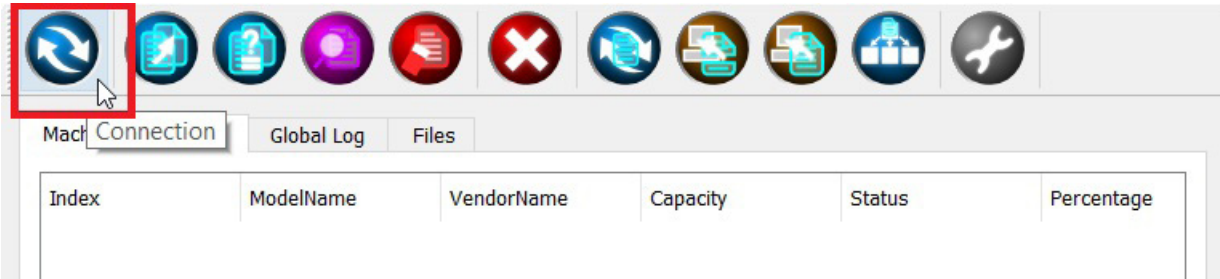


If it is your first time running Maxi, you should reset the default values.

- a) Click on Setup to open the setup menu.
- b) Click on the Restore Defaults button, and then click on the Apply button.




3. Click on Connect to connect Maxi with the KanguruClone duplicator.




Maxi will detect and attempt to connect to any duplicators on the same LAN.

When Maxi establishes a connection with a duplicator, the duplicator's screen will change to a blue colored theme and the machine will appear in Maxi under the Machine Summary tab.


- **Machine Summary** - Detected KanguruClones connected to Maxi appear here.  
When Maxi is connected to more than one KanguruClone, each Kanguruclone will have its individual window to display more information including Status, Settings, Logs, and Files in the source media.
- **Global Log** - Displays a list of events recorded by Maxi.
- **Files** - Click on **Refresh files**  to display a list of image files found on the KanguruClone.

## 7.2 Maxi Functions

### 7.2.1 Copy

Click on **Copy**  to start a copy on a connected KanguruClone.


### 7.2.2 Compare

Click on **Compare**  to start a compare on a connected KanguruClone.

### 7.2.3 Verify

Click on **Verify**  to start a verify on a connected KanguruClone.


### 7.2.4 Erase

Click on **Erase**  to start an erase on a connected KanguruClone.

### 7.2.5 Stop

Click on **Stop**  to stop any function currently running on a connected KanguruClone.

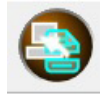
### 7.2.6 Refresh Files

Click on **Refresh Files**  to rescan the the Source position on a connected KanguruClone for a drive containing image files. Any detected image files appear under the Files tab.

### 7.2.7 Brief Load

Brief Load is used to build a data image of a Master drive connected to the duplicator's Source port, and save it locally on the PC running Maxi.

1. On the KanguruClone, assign the Source position, and connect the Master drive to the Source port.
2. In Maxi, under the Machine tab Summary, click on the source port where the Master drive is connected to select it.



3. Click on **Brief Load**.
4. Choose a save path and enter a file name.
5. Click on the Save button to start building a data image in the selected location.

### 7.2.8 Full Load

Full Load is used to build a full disk image of a Master drive connected to the duplicator's Source port, and save it locally on the PC running Maxi.

1. On the KanguruClone, assign the Source position, and connect the Master drive to the Source port.
2. In Maxi, under the Machine tab Summary, click on the source port where the Master drive is connected to select it.



3. Click on **Full Load**.
4. Choose a save path and enter a file name.
5. Click on the Save button to start building a full disk image in the selected location.

## 7.2.9 Restore Image to Client Source Devices

Restore or load an image file saved on the host PC to a Master drive connected to the KanguruClone's Source port.

1. On the KanguruClone, assign the Source position and connect a Master drive to the Source port.
2. In Maxi, under the Machine tab Summary, click on the source port where the Master drive is connected to select it.



3. Click on **Restore Image to all Client Source Devices**.
4. Select how you want to transfer the image file to the Master drive:
  - Save - copy the image file from the host to the drive connected to the Source position.
  - Save All - restore the image file, expanding and writing the contents to the drive connected to the Source position.

## 8. FAQ

**Q:** Do all Target drives have to be the same capacity?

**A:** If you select Full copy or Brief copy, the Target drives must have at least the same capacity as the Master hard drive.

**Q:** Can I clone a smaller capacity Master drive to larger capacity Target drives?

**A:** Yes, use the “RESIZE COPY“ operation to clone a smaller capacity Master to larger capacity Targets. However, all Targets must be the same capacity.

**Q:** Can I clone to Targets of various brands simultaneously?

**A:** Yes, the machine is able to clone hard drives of different brands.

**Q:** How does the duplicator handle multiple partitions on the Master drive?

**A:** The machine will auto-detect partitions on the Master drive and copy them. You are unable to select a specific partition(s) to copy.

**Q:** How does the duplicator handle multiple partitions of varying formats on the Master drive?

**A:** The machine will analyze the file system of the Master drive before it begins cloning.

**Q:** Can the duplicator clone operating systems such as UNIX and OS/2?

**A:** Yes, use the Full copy mode to copy any operating system.

**Q:** Can the duplicator defragment a partition?

**A:** No, defragmentation is not recommended on solid state drives.

**Q:** Can the duplicator copy encrypted drives?

**A:** The KanguruClone is able to copy encrypted drives through Full copy. The duplicate drives will also be encrypted.



## 9. WARRANTY INFORMATION

This product carries a 1 year\* limited warranty on the power supply, controller, and all internal components. The warranty does not cover any IDE, SATA, or Power cables. Kanguru Solutions is not responsible for any damages incurred in the shipping process. Any claims for loss or damage must be made to carrier directly. Claims for shipping errors should be reported to Kanguru Solutions within three (3) working days of receipt of merchandise. Please refer to the RMA Procedure section of this manual if your duplicator needs servicing.

**Kanguru Solutions does not offer money back returns on its duplicator product lines due to the unique nature of the product. All units will be fully supported under manufacturer's and/or extended warranty plans.**

## 10. TECHNICAL SUPPORT

If you experience any problems using your Kanguru product or have any technical questions regarding any of our products, please call our tech support department. Our tech support is free and available Monday thru Friday, 9am to 5pm EST.

Call 1-508-376-4245

Or visit our website at [www.Kanguru.com](http://www.Kanguru.com)

### RMA Procedure

**All Duplicators being serviced MUST BE PACKED IN THE ORIGINAL PACKAGING.** If you do not have your original packaging, you can purchase replacement packaging for \$25.00 from Kanguru's Tech Support Department. Kanguru Solution's warranty will not be honored in the event that a duplicator is received improperly packaged, altered, or physically damaged.

#### **STEP ONE: Call for a RMA Number: 508-376-4245**

Duplicators will not be accepted for repair without a valid RMA number. RMA numbers are valid for 30 days upon assignment. Any return without a valid RMA number will be returned to the customer at their expense.

#### **STEP TWO: Ship and Insure your Duplicator**

Kanguru Solutions strongly recommends you fully insure the duplicator for shipping. Kanguru Solutions is not responsible for if the package is lost or damaged in transit. We suggest using a shipping company that utilizes a "tracking" feature to verify "proof of delivery." The customer is responsible for shipping charges when returning a product. Shipping back to the customer is covered by Kanguru Solutions during the first 90 days of purchase. After 90 days of purchase the customer is responsible for shipping both ways.

Clip and Use this Label to Ship Your Return

Kanguru Solutions Tech. Support Dept. 1360 Main St. Millis, MA 02054	
RMA#	<input type="text"/>



Kanguru Solutions  
1360 Main Street  
Millis, MA 02054  
[www.kanguru.com](http://www.kanguru.com)

01.28.21 v1.1 © 2021 Kanguru Solutions

Legal terms and conditions available at [www.kanguru.com](http://www.kanguru.com). Please review and agree before use. Thank you.