



*SEM Mag EraSURE™*

*Mobile*

*Model 550*



*Product Manual*

Thank you for purchasing the SEM Mag EraSURE™ Mobile. When used correctly, the SEM Mag EraSURE™ Mobile provides a high-confidence and safe means to thoroughly erase sensitive data from magnetic storage products and media, such as Hard Disk Drives and Magnetic Tapes. Please take the time to read this manual before attempting to use the SEM Mag EraSURE™ unit for the first time, and keep this manual in a safe place where it will be readily accessible for use as an operating reference.



**CAUTION: Improper use of the SEM Mag EraSURE Mobile can result in serious harm or injury!** The manufacturer will not be responsible for any injury or malfunctions resulting from the misuse of this product, other than as set forth in this manual.

## 1 Overview of the SEM Mag EraSURE™ Mobile

The SEM Mag EraSURE™ Mobile employs a hand-crank and drive mechanism to cycle the device to be erased through a high-intensity magnetic field. Note that the SEM Mag EraSURE™ unit will not only erase the data stored on an HDD but will also render the HDD inoperable.



**HDD's that have been erased by SEM Mag EraSURE™ Mobile unit cannot be reused or repaired by conventional means. Pre-formatted tape media (LTO and some 3480/3490 cartridges) will also be unusable after being erased in this unit.**

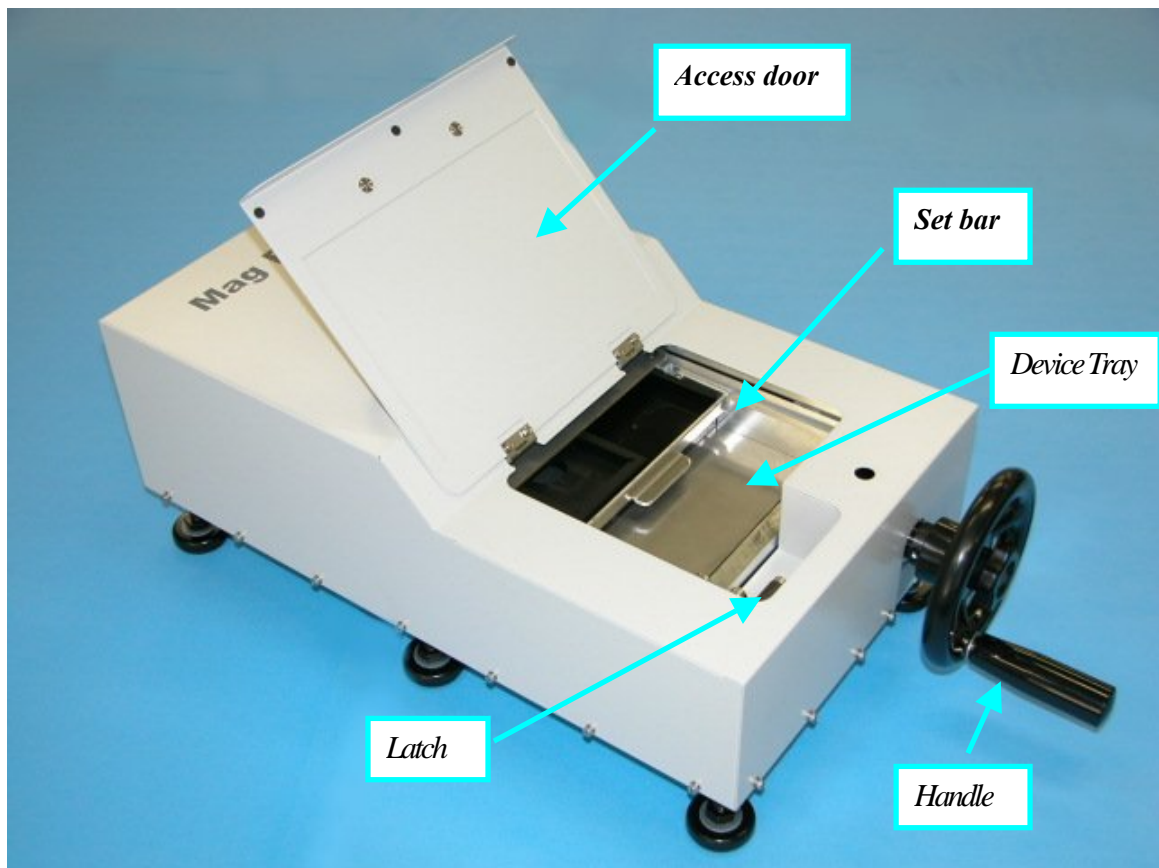
The SEM Mag EraSURE™ Mobile provides a quick and reliable means to erase data on the following Hard Disk Drives (HDDs):

- 3.5-inch "Half-Height" (1") HDDs
- 2.5-inch HDDs
- 1.8-inch HDD & PC-Card HDDs

In addition, the SEM MagEraSURE™ Mobile can be used to erase the following types of Tape media:

- 3480/3490 Tape Cartridges
- DLT Tapes
- LTO Tapes
- ¼" QIC Tape
- DAT Tape
- 8mm Helical Tape
- TRAVAN NS Tape
- AIT Tape

Operation of the SEM Mag EraSURE™ Mobile involves opening the *access door*, placing the appropriate device adapters in the *device tray*, loading the product/media to be erased, closing the access door, turning the crank to move the device tray through the magnetic field, and then turning the crank in the reverse direction until the device tray returns to the home position.



**FIGURE 1: The SEM Mag EraSURE™ Mobile**

## **2 SEM MAG EraSURE™ Mobile OPERATION**

### **2-1 Setting up the SEM Mag EraSURE™ Mobile**

Locate the SEM Mag EraSURE™ Mobile on a level surface in a secure location where it will not be subjected to vibration or impact. Avoid using or storing the unit in the following:

- (1) Direct sunlight or other high-temperature locations
- (2) Extremely cold or humid locations, or locations where it could come into direct contact with water or other liquids
- (3) Locations where there is a significant amount of dust, dirt or soot.
- (4) Locations where metal filings or metal particles are present. Metal particles can stick to the unit and are difficult to remove, and will eventually cause the unit to fail.

**NOTE:** Moving the unit from a cold outdoor environment into a heated room can result in the formation of condensation inside the chassis. In this event, allow the unit to sit and adjust to the new indoor temperature for at least an hour before using it.

## 2-2 Precautions

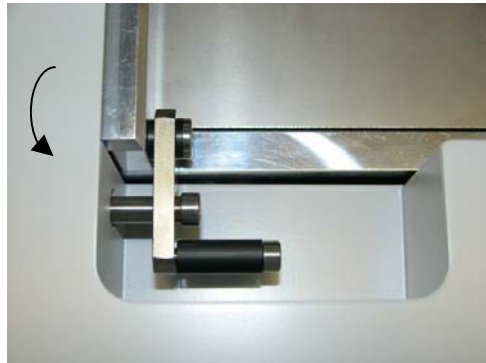
When using the SEM Mag EraSURE™ Mobile, always observe these important safety precautions:

- (1) Do not use SEM Mag EraSURE™ Mobile for any purpose other than erasing magnetic data from an HDD or a Tape. Do not attempt to erase any devices not listed in Table 1 of this manual.
- (2) The strength of the residual magnetic field outside the SEM Mag EraSURE™ Mobile is very low and poses no direct health risk, however *people with pacemakers or other devices that are sensitive to magnetic fields should not use this product.*
- (3) Do not place coffee, other beverages, or containers of liquid anywhere near the unit. The SEM Mag EraSURE™ unit could malfunction or cause a serious injury if liquid gets into the chassis.
- (4) Do not place objects on the cover or the access door of the SEM Mag EraSURE™ unit.
- (5) Store the attachments carefully when they are not in use. Do not drop the Set Bar or subject them to a strong impact. If they are damaged or deformed, the unit will no longer be operational.
- (6) Do not operate the SEM Mag EraSURE™ if it is damaged or defective. If the SEM Mag EraSURE™ Mobile becomes defective, return it to the place of purchase for repairs.

## 2-3 Using the SEM Mag EraSURE™ Mobile

- (1) Open the access door and make sure that the latch is locked:

**NOTE:** If you set an HDD when the latch is not locked, the Device Tray may be abruptly pulled in with magnetic force and result in injury. Never fail to lock the latch before setting an HDD.



- (2) Raise the Set Bar:



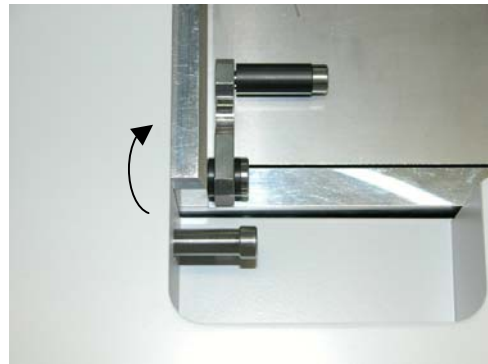
- (3) Place the HDD to be erased in the Device Tray. Refer to Section (please see Section 3 for the detailed instructions for each device type.):



(4) Lower the Set Bar to secure the HDD



(5) Release the Latch:



(6) Close the Access door.

(7) Turn the handle clockwise to move the device into the magnetic field:



Hold the handle firmly – the pull of the magnet on the HDD may cause the handle to turn on its own!

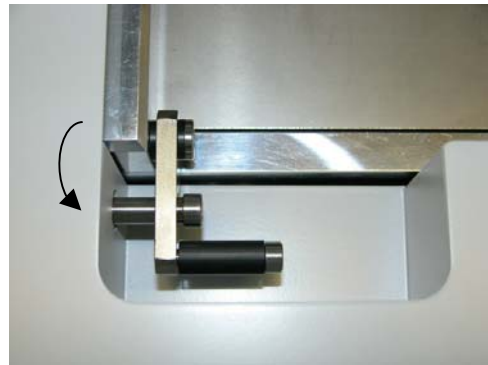


**NOTE:** Because of the interaction between the device and the magnetic field, an increasing amount of force may be required to turn the crank as the device moves through the field.

- (8) Continue to turn the handle until it will not turn any more. Then turn it counter-clockwise until it stops:



- (9) Open the access door and lock the latch:



- (10) Raise the Set Bar and remove the HDD.

- (11) Lower the Set Bar and close the door

## 2-4 Handling Erased HDD's

It is recommended that a label be attached to the erased HDD to indicate that the device has been erased by the SEM Mag EraSURE™ unit, to prevent others from inadvertently trying to use the device:



*FIGURE 2*

After being erased by the SEM Mag EraSURE Mobile, HDD's and pre-formatted tape media (LTO and some 3480/3490 cartridges) cannot be reused or repaired, so dispose of the HDD in accordance with local environmental standards

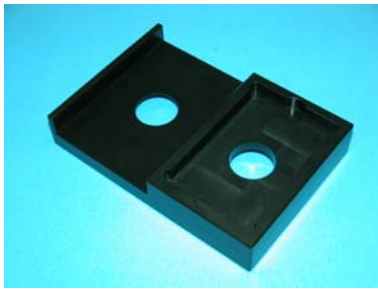
## 2-5 Maintenance



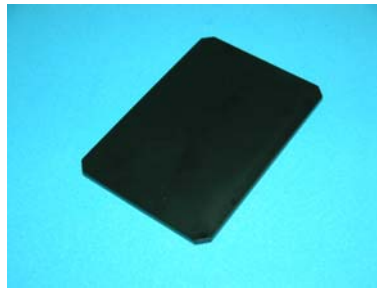
- (1) **Do not remove any covers or plates, or attempt to disassemble or modify this product in any way.** There are no user-serviceable parts in the SEM Mag EraSURE™ unit and there is a high risk of personal injury if the internal components are handled improperly. **Removing the cover or disassembling this product will void your warranty!**
- (2) A clean soft, dry cloth may be used to wipe down the outside of the SEM Mag EraSURE™ Mobile unit. Do not use harsh chemicals like benzene or thinners to clean the equipment.
- (3) The SEM Mag EraSURE™ Mobile contains strong magnets. Take appropriate precautions when disposing of the unit.

## 2-6 Device Adapters

The adapters shown below are included with the SEM Mag EraSURE™ unit to allow it to support a variety of HDDs and Tape Media. *Table 1* lists the adapters required for each device type supported by the SEM Mag EraSURE™ Professional. For details on how to the use of the adapters, refer to the Section read called out for the associated device in *Table 1*.



*Small HDD Adapter*



*HDD Spacer*

**NOTE:** Devices not covered in Table 1 are NOT SUPPORTED by the SEM Mag EraSURE™ Mobile. **Do not attempt to use the SEM Mag EraSURE™ unit with other types of devices** - doing so might damage the unit, and will void the Manufacturer's Warranty.

<b>DEVICE</b>	<b>Small HDD Adaptor</b>	<b>Spacer</b>	<b>SECTION</b>
<b>3.5" Half-Height (1") HDD</b>			<b>3.1</b>
<b>2.5" (9.5 mm H) HDD</b>	●	●	<b>3.2</b>
<b>2.5" (12.5 mm H) HDD</b>	●		<b>3.3</b>
<b>1.8" HDD</b>	●		<b>3.4</b>
<b>1.8" HDD (PC Card Mounted)</b>	●		<b>3.5</b>
<b>3480 Tape Cartridge</b>			<b>3.6</b>
<b>DLT Tape</b>			<b>3.7</b>
<b>LTO Tape</b>			<b>3.8</b>
<b>¼" QIC Tape</b>			<b>3.9</b>
<b>DAT Tape</b>	●		<b>3.10</b>
<b>8mm Tape</b>			<b>3.11</b>
<b>TRAVAN NS Tape</b>			<b>3.12</b>
<b>AIT Tape</b>			<b>3.13</b>

**TABLE 1: Device Adapter Applications**

### 3 PROCEDURES FOR MOUNTING AND REMOVING DEVICES

#### 3-1 3.5-inch Half-Height (1-inch) HDD

(1) Open the access door. The latch should be in the lock position. Raise the Set Bar.

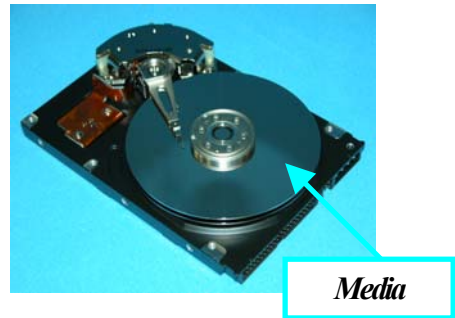
Place the HDD in the slot and the *media towards the right side of the SEM Mag EraSURE™* (same side as the turn handle). Be careful mounting the HDD - data may not be completely erased if it is not oriented correctly:



(2) Lower the Set Bar. Release the latch. Close the access door. Turn the turn handle clock-wise; continue to turn the handle until turn handle will not turn any more in this direction. Turn the turn handle counter-clockwise (opposite direction) until it stops:

(3) Open the access door and lock the latch. Raise the Set Bar and remove the HDD. Lower the Set Bar and close the door.

**NOTE:** Typically, HDD devices are constructed with the media and spindle (disk stack) on one end and the actuator (head stack) at the other. For example, the following pictures show the exterior and corresponding interior views of a typical 3.5” HDD:



If you are not sure which end contains the media, it is best to rotate the unit 180° and repeat the erase process.

### 3-2 2.5-inch (9.5 mm high) HDD

- (1) Set the Small HDD Adapter in the Device Tray, so that the HDD slot is towards the SEM Mag EraSURE's turn handle:



- (2) Place the spacer in the cutout in the Small HDD Adapter.
- (3) Place the HDD in the cutout:

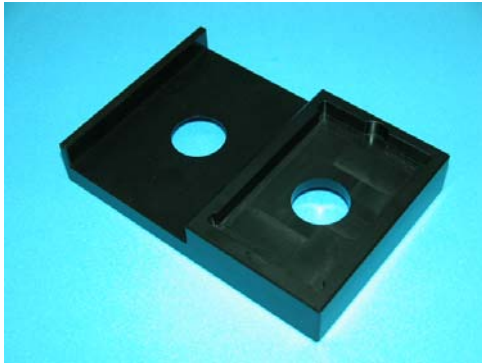


- (4) Follow the steps outlined in section 2.3 “Using the SEM Mag EraSURE™ Mobile” steps 1 through 11.



### 3-3 2.5-inch (12.5 mm high) HDD

- (1) Set the Small HDD Adapter in the Device Tray, so that the HDD slot is towards the SEM Mag EraSURE's turn handle:



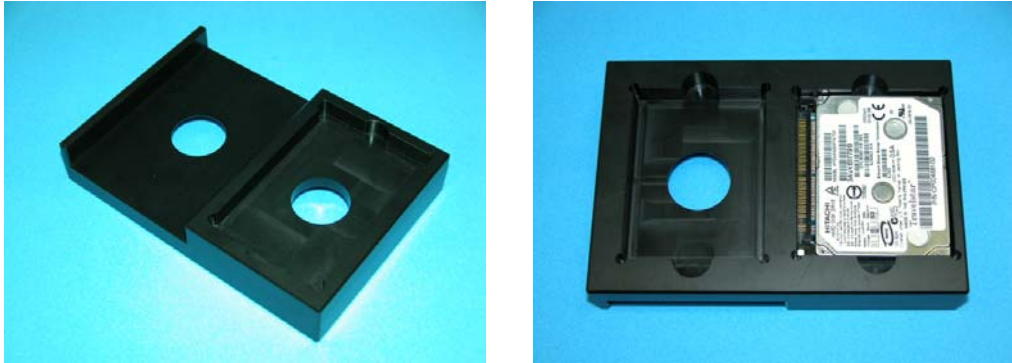
- (2) Place the HDD in the cutout in the Small HDD Adapter:



- (3) Follow the steps outlined in section 2.3 “Using the SEM Mag EraSURE™ Mobile” steps 1 through 11.

### 3-4 1.8-inch HDD

- (1) Set the Small HDD Adapter in the Device Tray, so that the HDD slot is towards the SEM Mag EraSURE's turn handle:



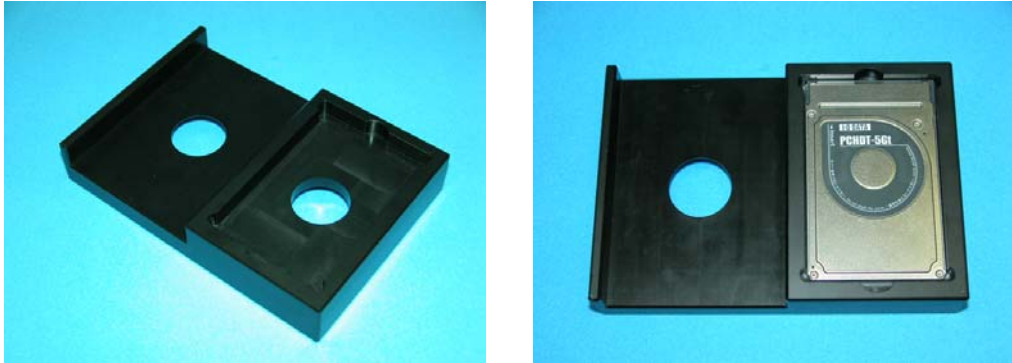
- (2) Place the HDD in the cutout:



- (3) Follow the steps outlined in section 2.3 “Using the SEM Mag EraSURE™ Mobile” steps 1 through 11.

### 3-5 1.8-inch HDD (PC-Card Mounted)

- (1) Set the Small HDD Adapter (PC-Card Mounted) in the Device Tray, so that the HDD slot is towards the SEM Mag EraSURE's turn handle:



- (2) Place the HDD in the cutout:



- (3) Follow the steps outlined in section 2.3 "Using the SEM Mag EraSURE™ Mobile" steps 1 through 11.

### 3-6 3480 / 3490 1/2-inch Tape Cartridge

- (1) Set the Tape directly to Device Tray, so that the HDD slot is towards the SEM Mag EraSURE's turn handle:



- (2) Follow the steps outlined in section 2.3 "Using the SEM Mag EraSURE™ Mobile" steps 1 through 11.

### 3-7 DLT Tape

- (1) Set the Tape directly to Device Tray, so that the HDD slot is towards the SEM Mag EraSURE's turn handle:



- (2) Follow the steps outlined in section 2.3 "Using the SEM Mag EraSURE™ Mobile" steps 1 through 11.

### 3-8 LTO Tape

- (1) Set the Tape directly to Device Tray, so that the HDD slot is towards the SEM Mag EraSURE's turn handle:



- (2) Follow the steps outlined in section 2.3 "Using the SEM Mag EraSURE™ Mobile" steps 1 through 11.

### 3-9 ¼-inch QIC Tape

- (1) Set the Tape directly to Device Tray, so that the HDD slot is towards the SEM Mag EraSURE's turn handle:

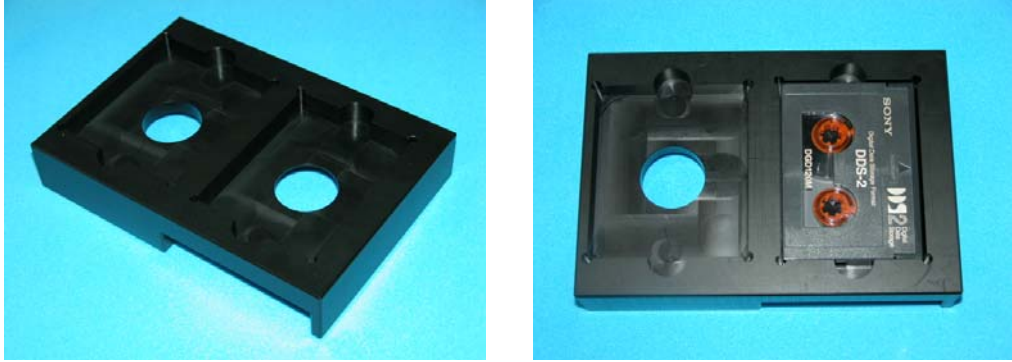
Rewind a tape and tape side is towards the SEM Mag EraSURE's turn handle.



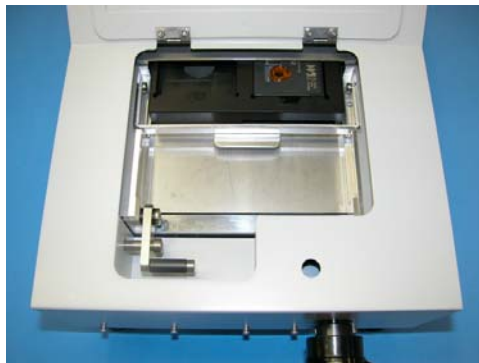
- (2) Follow the steps outlined in section 2.3 "Using the SEM Mag EraSURE™ Mobile" steps 1 through 11.

### 3-10 DAT (3.81mm Helical Scan) Tape

- (1) Set the Small HDD Adapter (DAT Tape Mounted) in the Device Tray, so that the Tape slot is towards the SEM Mag EraSURE's turn handle:



- (2) Place the Tape in the cutout:



- (3) Follow the steps outlined in section 2.3 “Using the SEM Mag EraSURE™ Mobile” steps 1 through 11.

### 3-11 8mm Helical Scan Tape

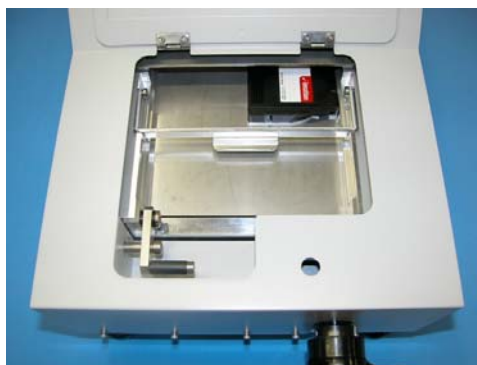
- (1) Set the Tape directly to Device Tray, so that the HDD slot is towards the SEM Mag EraSURE's turn handle:



- (2) Follow the steps outlined in section 2.3 “Using the SEM Mag EraSURE™ Mobile” steps 1 through 11.

### 3-12 TRAVAN NS Tape

- (1) Set the Tape directly to Device Tray, so that the HDD slot is towards the SEM Mag EraSURE's turn handle:



- (2) Follow the steps outlined in section 2.3 “Using the SEM Mag EraSURE™ Mobile” steps 1 through 11.

### 3-13 AIT

- (1) Set the Tape directly to Device Tray, so that the HDD slot is towards the SEM Mag EraSURE's turn handle:



- (2) Follow the steps outlined in section 2.3 “Using the SEM Mag EraSURE™ Mobile” steps 1 through 11.



## 4 Specifications

Demagnetization method:	Erasure by permanent magnet
Cycle Time:	approx. 60 seconds
Internal Field Strength:	5,000 Gauss ( <i>min</i> ) - 13,000 Gauss ( <i>max</i> )
External Field Strength:	100 Gauss (max.)

Supported devices:

*Hard Disk Drives:*

- (1) 3.5" HDD (1" height)
- (2) 2.5" HDD (12.5 mm height / 9.5 mm height)
- (3) 1.8" HDD (AT/PC card)

*Magnetic tape:*

- (1) 1/2-inch Tape (Type 3480)
- (2) DLT tape
- (3) LTO tape
- (4) 1/4-inch tape (QIC tape)
- (5) DAT tape
- (6) 8-mm helical tape
- (7) TRAVAN NS tape
- (8) AIT tape

Operating temperature range:	-40 to 65° C
Operating humidity range:	5 to 95% RH
Weight:	approx. 20 Kg
Dimensions:	270 mm (W) X 610 mm (D) X 190 mm (H)

*These specifications may change without prior notice*

## **5 Accessories**

- (1) Carrying Case                    ZB100-0550-T0004
- (2) Small HDD Attachment    ZB100-0550-X0028
- (3) HDD Spacer                    ZB100-0550-X0029

## **6 Consumables**

Reorder the following consumables whenever necessary:

- (1) Erased label                    ZB100-0520-X0002

## 7 Limited Warranty

- (1) You are entitled to warranty service according to the terms and conditions of this limited warranty if repair to your SEM Mag EraSURE™ Mobile hardware is required within the limited warranty period. Costs for returning the products shall be borne by the customer. In addition, SEM assumes no responsibility whatsoever for any losses or damages to personal computers, other peripheral equipment, software, or data that might be attributable to the failure of the SEM Mag EraSURE™ Mobile or other factors.
- (2) SEM assumes no responsibility whatsoever for damages or losses, either direct or otherwise, caused by the failure of this equipment or the use of this equipment.
- (3) Repairs shall be charged for, even if the equipment is returned during the warranty period, under the following circumstances:
  - The warranty is lost or is not provided.
  - The purchase date, product description, or serial number are not written on the warranty, or if the information on the warranty has been altered.
  - The damage or defect is a result of improper storage, the equipment being hit or dropped during transport, or other improper handling by the customer.
  - The damage or defect is a result of improper use, or modification or servicing by someone other than an authorized repair location.
  - The damage or defect is a result of fire, salt damage, gas damage, earthquake, lightning, wind and flood damage, other natural disasters, or if the damage is caused by abnormal voltages and other external factors.
- (4) Any modification or dismantling of the equipment voids the warranty.
- (5) This warranty cannot be replaced, so keep it in a safe, secure place.

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# Warranty

*Required information:* Warranty is void without the Serial No., Address and Name of the purchaser, and the Purchase Date.

- This warranty covers repair of the equipment at no cost subject to the terms and conditions stated in the limited warranty.
- If the equipment is defective or damaged during the warranty period, take the equipment to an authorized repair location together with this warranty.

number is printed on the label that is attached to the equipment.

Product and model No: SEM Mag EraSURE Mobile /ZB100—0550—00001
<input type="checkbox"/> Serial No. (S/N):
Warranty period is 1 year from the date of purchase.
<input type="checkbox"/> Address:
Telephone No:        -        -
<input type="checkbox"/> Name:
<input type="checkbox"/> Date of purchase: