

Degausser user manual – model SV91M

SECTION 3:

INTRODUCTION

A magnetic recording process is almost always preceded by an erasing process, either by bulk degaussing or by magnetic head erasure. Erasure is a fundamental step in achieving high quality recordings.

Bulk erasure is the preferred method due to the considerable reduction in time involved plus the otherwise use of expensive record/reproduce/erase equipment.

The SV91M bulk degausser functions like a large electro magnet, its erasing field originating as leakage flux from a large gap in the field structure, the SV91M structure is basically a U section.

The field intensity decreases rapidly as the distance from the degausser surface increases. For example at a distance of approximately 2.75 inches from the degausser's surface a field strength of only 50 oersteds exists. Furthermore, the erasing field present at the front edge nearest the operator is also very low. It is therefore recommended that care should be taken to ensure the entire width of tape to be erased is exposed to the effective field.

SECTION 4

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INSTALLATION

4.1 Unpacking

Unpack the degausser carefully, and inspect it for signs of physical damage. If damage is apparent, a claim should be filed with the courier.

4.2 Power Requirements

Check the power supply requirements on the label attached to the back of the equipment with the available supply. The unit is supplied with a flying 3 wire cable which, when connected to a properly wired receptacle, earths the unit. It is essential that a proper earth connection is made to assure safe operation.

CAUTION!

A good electrical ground must be connected to the degausser. The unit must be connected to the correct power supply. Failure to do so may result in permanent damage.

Connections: Wire Colour 50Hz Unit

Brown-Live

Blue-Neutral

Yellow/Green-Earth

IMPORTANT INSTRUCTION

The mains supply outlet socket should be close to the installed equipment and fully accessible.

NOTE: Degausser Current Consumption

The degaussing coils are powered as part of a tuned resonant circuit. This allows quite high circulating currents to be generated within the degaussing coils, with minimal current consumption from the mains voltage supply. However, this technique requires that the waveform of the supply voltage contains minimal harmonic distortion.

A distorted waveform will result in an increase in current consumption. In extreme cases excessive current will trip the circuit breaker making it necessary to use a mains filter to remove the distortion and reduce the current consumption.

The typical current consumption figures provided in this manual are when powered from a supply with minimal distortion. Any increase in current consumption due to a distorted waveform will have minimal effect on the degausser's performance, however, excessive current consumption should be avoided for obvious reasons. In the event of unexplained high currents, please consult your supplier.

SECTION 5: OPERATION

WARNING!

STRONG MAGNETIC FIELDS ARE GENERATED.

REMOVE WATCHES BEFORE USE

ENSURE THAT THE FAN OPERATES CORRECTLY DURING USE.

(AFTER INITIAL WARM UP PERIOD).

OPERATING PERIODS

IN EXCESS OF SPECIFIED DURATION WILL RESULT IN

EXTERIOR SURFACES BECOMING VERY HOT.

The SV91M degausser has been designed for simplicity of operation in that it consists basically of a flat bed over which the magnetic media is passed. Control is via a single on/off switch and indicator.

5.1 Turning on the SV91M

NOTE:

Where a security key switch is fitted, the degaussing coil must only be energised and de-energised by using the power switch, i.e. use the RED BUTTON to switch power ON/OFF, NOT the key switch.

The key switch is on the unit to immobilise it and stop unauthorised use. Following the procedure shown below will reduce the possibility of damaging the key switch contacts.

i. To Switch On

a. Put key in key switch, switch "ON", by turning the key clockwise, (POWER WILL NOT COME ON YET).

b. Press red Power button to latch in, "ON".

The red light in the latching power "ON" button will light up. (POWER IS NOW ON).

ii. To Switch Off

a. Press red Power button to unlatch out, "OFF".

Red light in the latching power "OFF" button will go OUT.

b. Switch key switch "OFF", by turning the key anti-clockwise, remove key. (POWER IS NOW OFF).

The illuminating on/off power switch is of the latching push button type which energises the degaussing coil. The media to be erased should be held away from the degausser whilst it is switched on. When switched on the degauss indicator will also illuminate.

On units with the key switch option fitted, the power switch will illuminate as normal when switched on but will also require the key switch to be turned clockwise for correct operation.

The media to be erased should be brought slowly towards the degausser's top surface.

Place the media on the top surface against the guide at the right or left hand edge. Slide the media across the degausser in a slow and deliberate movement taking approximately three seconds to traverse the top face.

5.2 Cassettes and Cartridges

Cassettes and cartridges must be turned through 90 degrees and a second pass made, the media must be turned over and the process repeated, making a total of

four passes to ensure complete erasure.

5.3 Reels and Pancakes

The media in reel or pancake form to be erased should be brought slowly towards the top surface. The media should be placed on the surface and rotated slowly and evenly taking approximately five seconds to complete a revolution; then remove the media slowly from the degausser before switching off. Reels with tape wider than 1/2" should be turned over then subjected to a second pass. It is recommended that the degausser is switched off between media erasure as this will reduce the internal heating and increase the operation time.

5.4 3½" and 5¼" Hard Disk Drives

Because of the different types and manufactures specifications of PC hard disk units, Verity Systems only recommends the erasure of hard disk units as a security precaution for the following:

- a. Erasure of data from a faulty disk pack before being sent for service/repair.
- b. Erasure of data from disk packs before disposal of computer equipment.

NOTE:

Verity Systems can not guarantee that a drive will be operational after degaussing.

Method

The hard disk pack can be erased as a whole unit and there is no need to remove the disks.

1. Place the hard disk drive on SV91's surface, slightly off - centre as shown in Fig. 1 and hold down.

The hard disk's PCB board should be facing upwards throughout this process.

Switch the degausser ON for 5 seconds and then switch OFF.

NOTE:

The magnetic field might cause the hard disk to vibrate. This is quite normal.

2. Rotate the hard disk through 90 degrees (Fig. 2).

Switch ON the degausser for 5 seconds and then switch OFF.

3. Rotate the hard disk through 90 degrees (Fig. 3).

Switch ON the degausser for 5 seconds and then switch OFF.

4. Rotate the hard disk through 90 degrees (Fig. 4).

Switch ON the degausser for 5 seconds and then switch OFF.

The hard disk is now erased.

SECTION 6: INDICATORS/FEATURES

6.1 Indicator

The degauss indicator is provided to give an indication of degausser coil energisation.

Certain circumstances can arise when, although the unit is switched on, the degauss coils may not be energised.

6.2 Overheat Protection

The high energy field developed by the SV91M necessitates the generation of a considerable amount of heat. The degausser coil is monitored for excessively high temperatures and should this condition occur its operation will be inhibited until the coil has cooled sufficiently.

6.3 Cooling

A thermostatically controlled cooling fan is provided to extend the continuous operating period to a maximum.

6.4 Protection

The unit is protected by a thermal type circuit breaker. The current rating depends on the specified operating voltage.

SECTION 7:

MAINTENANCE /SERVICE

The unit is basically maintenance free but periodic checks should be made to ensure the correct operation of the fan and the good condition of the power cable.

NOTE:

To reduce the risk of shock hazard disconnect the degausser from the mains voltage supply before carrying out any maintenance or servicing.

7.1 Circuit Breaker

To reset the circuit breaker simply 'push in' and 'release' the button.

7.2 Bulb Replacement

NOTE: Remove Power from the unit before replacing bulbs.

7.2.1 Remove the "bulb lens" from the "switch/indicator body" by levering it forwards.

7.2.2 Remove the bulb from the rear of the "bulb housing" using a suitable extraction tool.

7.2.3 Replace the bulb noting the following:

a) The bulb will fit in only one position in a locating slot. If when fitting this does not occur, remove the bulb and rotate it through 180°.

7.2.4 Refit the "bulb lens" to the "switch/indicator body" by gently pushing the lens into the "switch/indicator body" housing.

7.3 Cooling Fan

The cooling fan is of the conventional axial type powered from the ac voltage supply. The unit is over temperature and over current protected and does not require servicing. However in the event of failure the fan may easily be replaced from the rear of the degausser.

7.4 Internal Components

Most of the internal components are replaceable, i.e. the solid state relay, toroidal transformer and the thermal switches mounted on the degausser coil. However the tuning capacitors and the degaussing coil are not spares items and if found to be faulty the unit should be returned to Verity Systems for repair.

To access the components inside the degausser the laminate cover must be removed.

This entails breaking the adhesive seal using a sharp blade.

7.4.1 Solid State Relay Replacement

A thermally conductive compound should be used to ensure adequate heat dissipation from the relay to the metal case.

7.4.2 Thermal Switch Replacement

Care must be exercised when replacing either of the switches on the degausser coil.

The switches are fitted using an epoxy resin and it is recommended that the new switch be fitted in a new position on the coil and the old switch

be left in place. The wire

connections are of the 'push on' spade type and are easily transferred to the new switch. A high temperature epoxy resin part no. EA 200 001 should be used to secure the new switch.

7.4.3 Cover replacement

The laminate cover should be cleaned of old adhesive before refitting, using the sealant part no. EA 100 007.

AKL Technology Engineering & Services

1 Yishun Industrial Street 1, #08-28 A'Posh Bizhub, Singapore 768160

Tel: 68916066 Website: www.akl-it.com Email: sales@akl-it.com