V94

Bulk Tape Degausser

ZZ009407, ZZ009413, ZZ009415 **Rev. 11**

VS SECURITY PRODUCTS LTD

V94 BULK TAPE DEGAUSSER

OPERATING MANUAL

PRODUCTION STANDARD

ZZ009407 - 208v 60Hz
ZZ009413 - 115v 60Hz
ZZ009415 - 220-240v 50Hz

WARNING

TO AVOID ELECTRIC SHOCK HAZARDS, THE COVER SHOULD ONLY BE REMOVED BY AUTHORISED PERSONNEL

SAFETY RECOMMENDATIONS

IT IS RECOMMENDED THAT PEOPLE WITH ANY FORM OF HEART PACE-MAKERS OR IMPLANTS ETC. AVOID CLOSE PROXIMITY TO ANY EQUIPMENT OF THIS TYPE WITHOUT FIRST SEEKING APPROPRIATE MEDICAL ADVICE.

OPERATORS OF THE DEGAUSSER SHOULD ENSURE THEY REMOVE ANY WRIST WATCHES PRIOR TO USING THE UNIT, AND THAT ANY CREDIT CARDS OR OTHER MAGNETIC DEVICES ARE PLACED OUT OF RANGE.

CAUTION

IT IS RECOMMENDED THAT MAGNETIC STORAGE MEDIA IS KEPT AT LEAST 1 **METRE** (3 FEET) **FROM THE DEGAUSSER**

IMPORTANT

THE POWER ON/OFF SWITCH USED ON THIS EQUIPMENT IS NOT AN ISOLATING SWITCH. IT IS RECOMMENDED THAT THIS EQUIPMENT SHOULD BE OPERATED FROM A SEPARATE SWITCHED ISOLATOR.

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C O N T E N T S

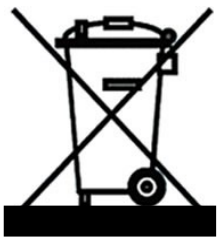
This document refers to V94 Bulk Tape Degausser part no's;

ZZ009407	**208v**	**60Hz**
ZZ009415	**220-240v**	**50Hz**
ZZ009413	**115v**	**60Hz**

SECTION 1: S P E C I F I C A T I O N

MEDIA HANDLING	**Reels** - 1/4", 1/2", 1" maximum diameter 15"
	Cassettes - most oxide cassettes including; VHS, Betacam, Umatic, DC600, DC2000, 3480, S-VHS. Floppy Disks - all formats
	Cartridges – Data DC 300, 600, 2000, 3480/3490; TK50, TK70; 4mm/8mm; Exabyte/Travan; DAT; DLT; Floppy Disks. Mini DV (Mini DVCAM)
ERASURE DEPTH	-75db on 850 Oe tape
DUTY CYCLE	30 - 50% (Dependant on ambient temperature)
RUN TIME	10 minutes typical
ERASURE TIME	10 seconds typical (Double Pass)
OPERATING VOLTAGE	220-240v (50Hz) or 115v (60Hz) or 208v (60Hz) unit dependant
CURRENT	2.5 amps typical 220-240v 50Hz ZZ009415 1.5 amps typical 208v 60Hz ZZ009407 3.5 amps typical 115v 60Hz ZZ009413
CIRCUIT BREAKER	5A Antisurge
MOUNTING	Free standing table top
DIMENSIONS	14.3'' x 13.9'' x 4.9'' (36cm x 35cm x 12cm)
DIMENSIONS (PACKED)	19.2'' x 19.2'' x 9.8'' (49cm x 49cm x 25cm)
WEIGHT	23 lbs (10.5kg)
WEIGHT (PACKED)	29 lbs (13kg)

ENVIRONMENTAL PROTECTION



This product must not be disposed of with household waste. You are responsible for ensuring and financing all costs of collection, treatment, recovery and environmentally sound disposal of the goods in accordance with the WEEE directive.

Registered Producer Number: WEEE/JB2622WS

VS Security Products reserves the right to amend or modify the specifications and design criteria applying to these products

SECTION 2: INTRODUCTION TO THE V94 Degausser

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 V94 functions like a large electro magnet, its erasing field originating as leakage flux from a large gap in the field structure, the V94 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 30 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 3: INSTALLATION

Care should be taken when moving/handling the Degausser.

3.1 Unpacking

The degausser is shipped inside a cardboard packing case. Unpack the degausser carefully by disassembling the packing case and inspect it for signs of physical damage. If damage is apparent, a claim should be filed with the carrier immediately.

Once you have exposed the degausser, you can carefully remove it from the packing box. You should find the following:

- ⇒ V94 Bulk Tape Degausser
- ⇒ Power Cable
- ⇒ User Manual (This document)

3.2 Power Wiring

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 <u>essential</u> 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.

<u>Connections</u>

Wire Colour	50Hz	60Hz
Brown	Live	Hot
Blue	Neutral	Cold
Yellow/Green	Earth	Earth/Ground

Wire Colour	60Hz
Black	Hot
Black	Hot
Yellow/Green	Earth/Ground

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

NOTE: 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.

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 performance, however, excessive current consumption should be avoided for obvious reasons. In the event of unexplained high currents, please consult your supplier.

SECTION 4: 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.

4.1 Turning on the V94

The V94 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.

4.2 Erasing Process

The media to be erased should be brought slowly towards the degausser's top surface on either the left or the right side. Slide the media across the degausser surface to the other side in a slow and deliberate movement taking approximately three seconds to traverse the top face. You should feel the pull of the magnetic force in the centre as you pass the media across.

4.2.1 VHS Cassettes

1. Switch the unit ON
2. Bring the cassette slowly to the right-hand side of the surface
3. Using the guide bar, slide the cassette across the surface in a continuous movement, taking approximately 4/5 seconds, removing the cassette from the left-hand side
4. Turn the cassette through 90 degrees and repeat steps 2 and 3
5. Turn the cassette over and repeat steps 2-4
6. If no further cassettes are to be erased, switch the V94 OFF to conserve power and reduce the risk of accidental erasure

SECTION 5: INDICATORS / FEATURES

5.1 Indicator

The erase 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.

5.2 Overheat Protection

The high energy field developed by the V94 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.

5.3 Cooling

Forced air cooling of the degaussing coil is provided to maximise the run time. The fan operation is thermostatically controlled.

5.4 Protection

The unit is protected by a 5 amp fuse of the slow blow or antisurge type.

SECTION 6: MAINTENANCE /SERVICING

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.

6.1 Fuse Replacement

To replace the fuse, rotate the cap in an anticlockwise direction and remove the cap complete with the fuse. Renew the fuse and replace the cap and tighten in a clockwise direction.

6.2 Internal Components

Most of the internal components are replaceable, i.e. the tuning capacitor and the thermal switches mounted on the degausser coil. However the tuning capacitors and the degaussing coil are not spared items and if found to be faulty the unit should be returned to VS Security Products for repair. To access the components inside the degausser the laminate cover must be removed. This entails removing the screws around the base and rear panel

6.2.1 Tuning Capacitor

The capacitor is secured by a simple screw clip and connections are made via push on spade connectors, allowing easy replacement in the event of failure.

6.2.2 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. EA200001 should be used to secure the new switch.

6.2.3 Cover Replacement

The formica cover should be cleaned of old adhesive before refitting, using the sealant part no. EA100007

SECTION 7: TABLES

7.1 Basic Fault Finding Table

The table below assists fault finding down to component levels. However, should the degaussing coil or tuning capacitors be found to be faulty it is recommended that the unit be returned to VS Security Products for repair.

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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 performance, however, excessive current consumption should be avoided for obvious reasons. In the event of unexplained high currents, please consult your supplier.

Function	Symptoms	Possible Fault	Location
Fails to degauss media	Fuse F1 repeatedly blown	Incorrect supply voltage / frequency	User source
		Faulty switch	Front left-hand corner
		Faulty degauss coil L1 and/or tuning capacitor C1	Inside centre and left-hand side
Power lamp	Fails to illuminate	Loss of mains supply	User source
		F1 fuse blown	Rear panel
		Faulty switch	Front panel
Erase lamp	Fails to illuminate / flashes	Extensive use of degausser caused overheating. Allow unit to cool (Not a fault)	
		Faulty temperature sensor	Secured to L1 coil - front left-hand side
		Faulty lamp	

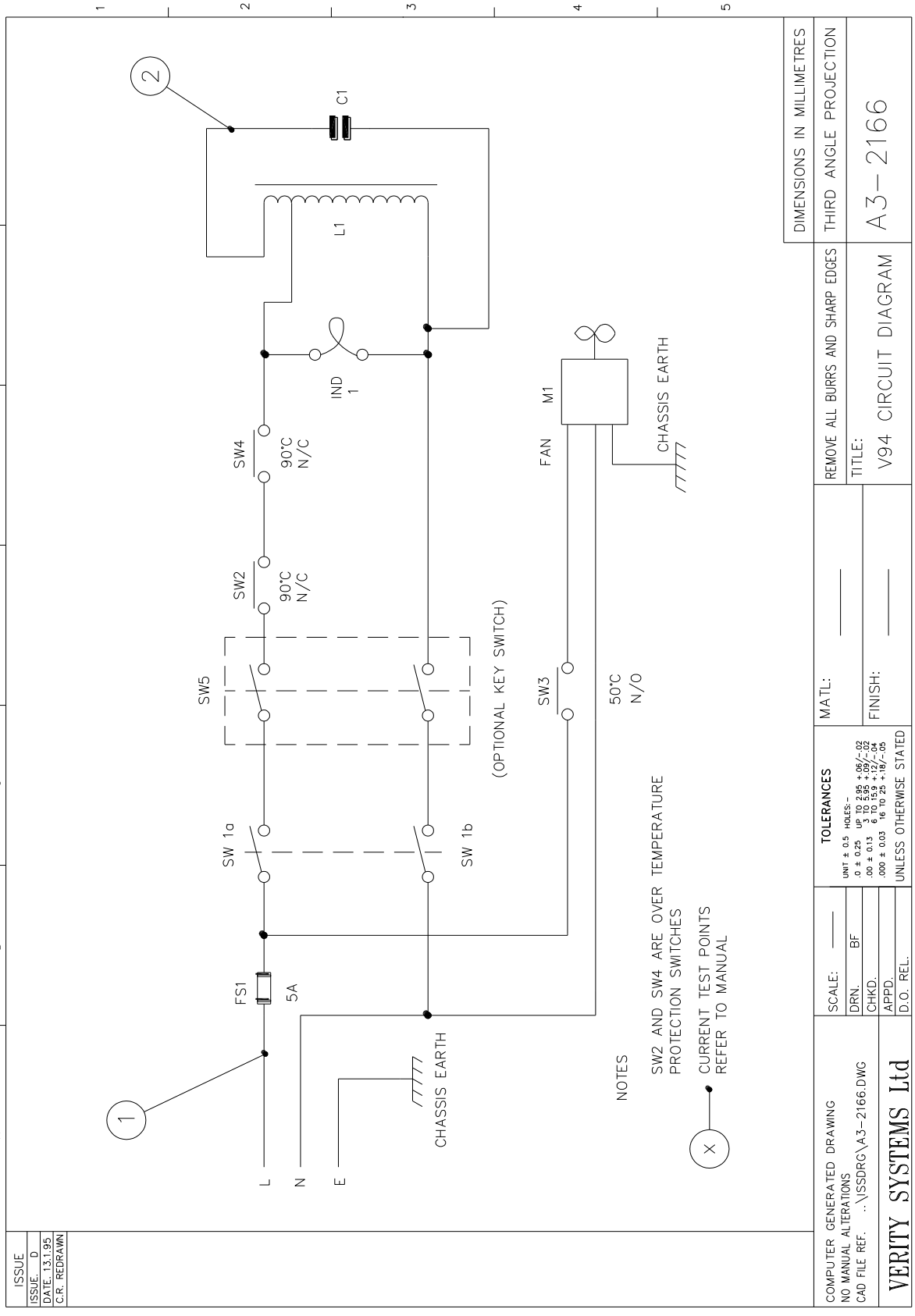
7.2 Current Monitor Test Points

The following table contains typical current values to be measured at specific points in the equipment.

The values given are in amperes and may differ slightly from those actually measured due to component tolerance plus effects due to operating temperature.

		Current monitor test points (Refer to circuit diagram)	
Model	**Voltage / Frequency**	**1**	**2**
ZZ009407	208v 60Hz	1.5A	5.8A
ZZ009413	115v 60Hz	3.5A	5.8A
ZZ009415	220-240v 50Hz	2.5A	5.8A

SECTION 8: CIRCUIT DIAGRAM



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