



# **TECHNICAL MANUAL**

## **Operating and Maintenance Instructions for**

### **V890 MEDIAGAUSSE**

**V890 MEDIAGAUSSE**

**TECHNICAL MANUAL**

**Document No. M/000247**

**Production Standard**

**WARNING**

**TO HELP MINIMISE THE POSSIBILITY OF ELECTRICAL  
SHOCK HAZARDS UNDER NO CIRCUMSTANCES SHOULD**

ANY PANELS BE REMOVED

**PLEASE NOTE:**                    **THE REMOVAL OF ANY OF THE EQUIPMENT PANELS  
WILL RESULT IN THE INVALIDATION OF THE WARRANTY**

**CAUTION**                    **IT IS RECOMMENDED THAT MAGNETIC STORAGE MEDIA  
IS KEPT AT LEAST TWO METRES 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.**

***It is recommended that people with any form of heart pace-maker or implants etc., avoid close proximity to any equipment of this type without appropriate medical advice.***

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### Circuit Diagrams

This document refers to V890 Mediagausser  
Part Nos. ZZ 008 903 & ZZ 008 906

## 1. SPECIFICATION

### V890 MEDIAGAUSER

**Depth of Erasure** -75dB

**Media** Cassettes; VHS, Betacam, Betamax,  
Cartridges; Data DC 300, 600, 2000, 3480, TK50.

#### Power Requirements

Model	ZZ 008 901	ZZ 008 906
Line Voltage	110-125v	220v
Line Frequency	60Hz	60Hz
Current (typical)	12 amps	8 amps

**Protection** Circuit Breaker 15 amps

**Conveyor Belt Speed** 12 ips fixed

**Belt Width** 7.5" (191mm)

**Duty Cycle** Continuous (For continuous operation the ambient temperature should be kept below 25deg C)

**Mounting** Free standing table top

**Overall dimensions**  
Length 48.9" (1241mm)  
Height 6.9" (175mm)  
Depth 18.1" (460mm)

**Weight** 220 lbs (100Kg)

## 2. INTRODUCTION TO THE V890 MEDIAGAUSER

The Verity V890 Mediagauser is designed for continuous duty, single pass erasure of magnetic storage media. The conveyor belt transport permits a throughput of up to 9,500 VHS cassettes per hour.

During the design stage of the V890 particular consideration was given to user efficiency; to maximise the media throughput in the minimum time with the minimum of fuss. It is these criteria which has led to several unique features incorporated in the V890.

The V890 utilises two **U** shaped degaussing coils mounted in a **V** formation which, extensive research has proven, gives optimum and consistent erasure of circular storage media with a single pass. Additional features include temperature sensors to monitor and control the maximum operating temperature of the degaussing coils.

In the unlikely event of a fault occurring, over current protection is achieved using a combined power on/off switched circuit breaker. Last, but not least, the V890 is of rugged mechanical construction using high quality material throughout to ensure years of reliable use.

### 3. INSTALLATION

#### 3.1. Unpacking

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

#### 3.2. Power Wiring

Power connection is made to the V890 via the heavy duty flying cable at the rear of the unit. The power circuit to the degausser should be rated in accordance with the national and local electric codes. The V890 operates from specific supplies. Check for compatibility.

**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.***

Wire colour	110-125v 60Hz	220v 60Hz
Brown	Hot	Hot
Blue	Cold	Hot
Green/Yellow	Ground	Ground

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

### 4. OPERATION

The V890 mediagausser has been carefully engineered for convenience and simplicity of operation. The unit has a number of unique features which are outlined below.

The V890 uses forced air cooling and to ensure correct operation care should be taken to avoid restricting the air flow through the unit.

#### 4.1. Power Switch

The power switch is of the rocker type and includes the over current circuit breaker function. It is the only control provided.

When the power switch is activated the conveyor belt drive and degaussing coils will be energised.

#### 4.2. Product Erasure

The media to be erased is fed onto the degausser at the left end and exits at the right end.

##### Cassettes

VHS, Betacam and Betamax should be placed on the conveyor window down. (See Note 2)

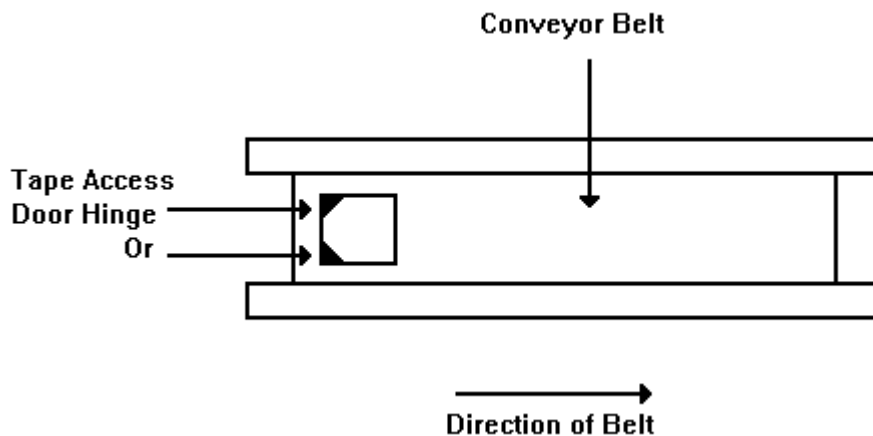
##### Cartridges

DC series should be placed on the conveyor window side down and 3480 series placed drive side down.

TK50 and TK70 cartridges must be placed on the conveyor belt with the tape access door hinge point trailing (see diagram on next page). Failure to do so may result in permanent damage to the degausser or cartridge.

##### Note

- 1) Do not unplug the degausser when power is 'on'.
- 2) Due to variations in energy levels of professional tapes, it may be found desirable to subject some types to a second pass with tape window up.



## **5. INDICATORS/FEATURES**

### **5.1. Forced Air Cooling**

The V890 contains three axial fans which ensure continuous operation of the degauss coils. The fans are thermostatically controlled and will continue to run after the degausser is switched off. The fans will switch off after a short period when the degaussing coils have cooled.

#### **Note**

The extended fan run period may be increased substantially if the degausser is operated in a high temperature environment.

### **5.2. Overtemperature Sensors**

Each of the degaussing coils is monitored for excessive operating temperatures and in such an event the degausser will be automatically switched off until the coils have cooled sufficiently. The belt drive motor and degauss coils will automatically re-energise after having cooled sufficiently if the power switch is left 'ON'. The V890 is specified for continuous operation over a specified temperature environment and the sensors will not normally be activated

### **5.3. Conveyor Belt Speed**

The conveyor belt is driven by an a.c. asynchronous motor, chain and sprocket system. The speed of the motor is fixed and no adjustment or maintenance is required.

### **5.4. Over Current Protection**

The power ON/OFF switch provides both switch and over current circuit breaker functions.



## **6. MAINTENANCE/SERVICING**

### **6.1. Cleaning**

The degausser should be cleaned with a soft cloth moistened with a mild detergent solution. Abrasive pads or solvents should be avoided as permanent damage to the surface may result.

### **6.2. Servicing**

The V890 degausser has been thoroughly checked for correct operation prior to leaving Verity Systems and should provide years of trouble-free operation. The conveyor belt drive system utilises sealed lubricated bearings and a brushless motor, both being normally maintenance free. In the event of equipment failure consult your supplier.

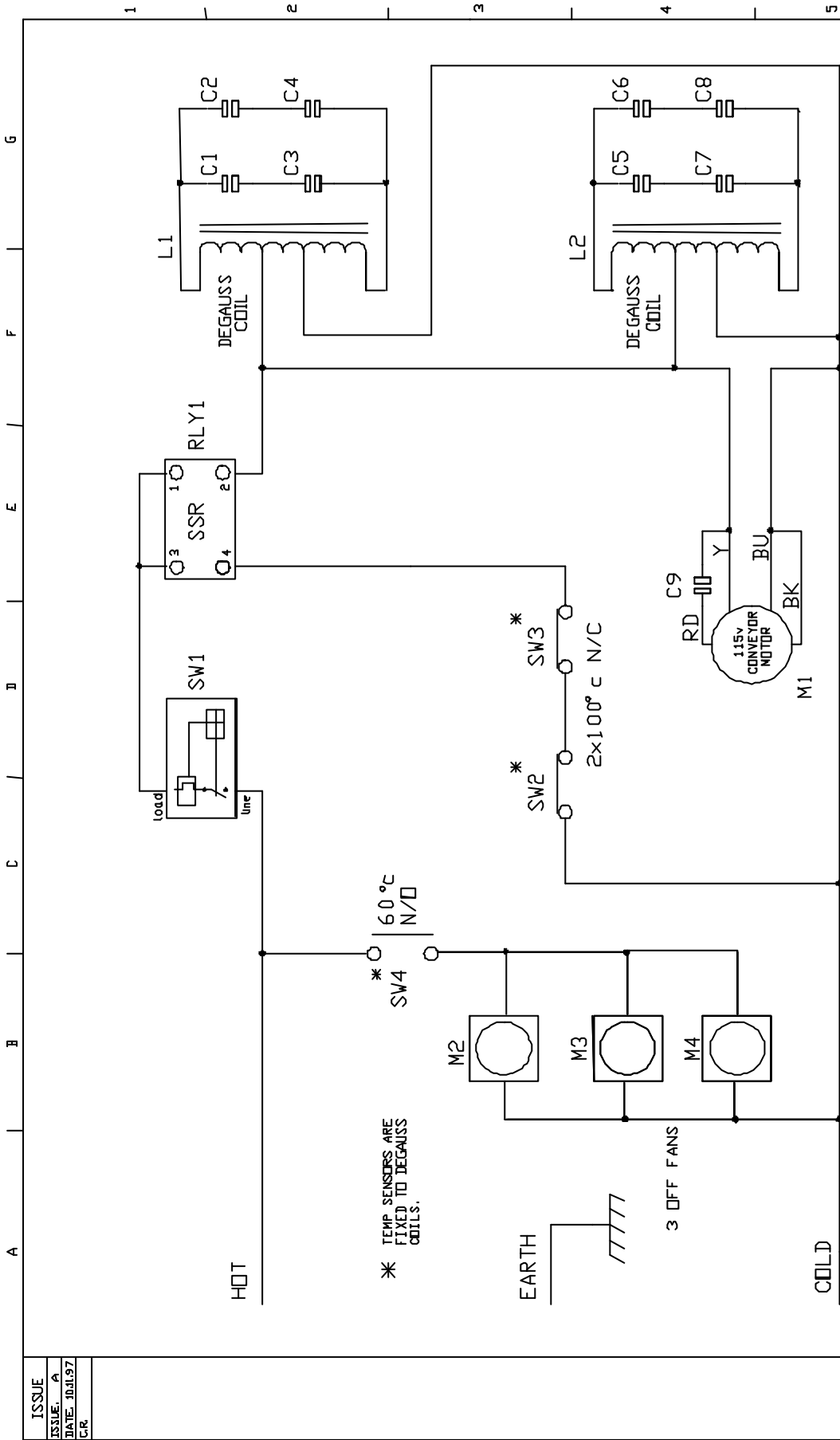
### ***Warning***

***This equipment generates high voltages which are potentially fatal. Servicing should be carried out by qualified personnel only.***

7. V890 MEDIAGAUSSE

PARTS LIST 220v 60Hz  
ZZ 008 906

Designation	Part No.	Description	Qty
	BB100020	Ball Bearing	4
	CA100041	Strain relief bush	1
	CA100219	Grom 12.3mm panel open	4
	CA100300	P clip 7.5mm	2
	CA200010	Cable, mains	1
C1 - C8	CC100080	Capacitor 35µF	8
C9	CC100081	Motor run capacitor	1
C9	CC200009	Capacitor strap	1
	CM100048	Term block multi tab 16A	1
	FM100033	Fan Guard	3
24	FM100027	Fan 120mm dia 115v	3
M1	FM100094	Asyn geared mtr 115v 60Hz	1
	FM200085	Chain and link	1
	MP002124	Bearing collar	4
	MP002234	Chain sprocket (small)	1
	MP002630	Support Strip (front)	1
	MP002632	Roller	2
	MP002633	Spacer (Covers)	8
	MP002634	Chassis	1
	MP002635	Conveyor belt	1
	MP002696	Rear cover	1
	MP002697	Front cover	1
	MP002795	Support Strip (rear)	1
	MP002802	Chain sprocket (large)	1
RLY 1	RS100010	Solid state relay	1
RLY 1	SH300011	Relay heat sink	1
SW1 20	SW100114	15A circuit breaker	1
	TX 100 061	Transformer	1
	XX001871	Foot	4
	XX002640	Belt support tray assy	1
L1	XX003441	Coil/lam assy LH	1
L2	XX003442	Coil/lam assy RH	1



ISSUE		DIMENSIONS IN MILLIMETRES	
ISSUE: A	NO. OF SHEETS: 1	REMOVE ALL BURRS AND SHARP EDGES THIRD ANGLE PROJECTION	
DATE: 01.01.97	NO. OF SHEETS: 1	TITLE: 115V 60HZ	
CR	NO. OF SHEETS: 1	V890 CIRCUIT DIAG	
COMPUTER GENERATED DRAWING		MATERIAL:	
NO MANUAL ALTERATIONS		FINISH:	
CAD FILE REF: ..\ISSDRG\A3-2812.DWG		UNLESS OTHERWISE STATED	
VERITY SYSTEMS Ltd		SCALE: —	
		DRN: JD	
		CHKD:	
		APPD:	
		D.D. REL:	