



TECHNICAL MANUAL

**Operating and Maintenance
Instructions
for**

V870 MEDIAGAUSSE

V870 MEDIAGAUSSE

TECHNICAL MANUAL

Document No. M/000295

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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Assembly Drawing

Circuit Diagrams

**This document refers to V870 Mediagausser
Part Nos. ZZ 008 702 and ZZ 008 703**

1. SPECIFICATION

V870 MEDIAGAUSSER

Degaussing Force	2750 Oe
Depth of Erasure	-75dB
Media	S-VHS, VHS, Betacam, Betamax, Cassettes, Cartridges, Data DC 300, 600, 2000, QIC, Magnus, 3480, 3490, TK50, TK70, TK85, 4mm, 8mm.

Power Requirements

Model	ZZ 008 703	ZZ 008 702
Line Voltage	115v	240/220v
Line Frequency	60Hz	50Hz
Current (typical)	8.5 amps	5.0 amps

Protection

Circuit Breaker	10 amps
Conveyor Belt Speed	8 ips fixed 50Hz 10 ips fixed 60Hz
Duty Cycle	Dependant on ambient temperature and voltage variations - 17 minutes typical at 115V 60Hz
Mounting	Free standing table top
Overall dimensions	Length 30½" (775mm) Height 4¾" (120mm) Depth 11⅝" (295mm)
Weight	48 lbs (22Kg)

2. INTRODUCTION TO THE V870 MEDIAGAUSSE

The Verity V870 Mediagausser is designed for intermittent duty, single pass erasure of magnetic storage media. The conveyor belt transport permits a throughput of up to 2000 VHS cassettes per hour.

During the design stage of the V870 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 V870.

The V870 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 degussing coils, plus forced air cooling of the degauss coils to maximise the run time.

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 V870 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 V870 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 V870 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	220/240v 50Hz	115v 60 Hz
Brown	Live	+
Blue	Neutral	-
Green/Yellow	Earth	Cold/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 V870 mediagausser has been carefully engineered for convenience and simplicity of operation. The unit has a number of unique features which are outlined below.

The V870 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)

S.VHS should be erased twice, once window side down and the second time window side up for optimum results.

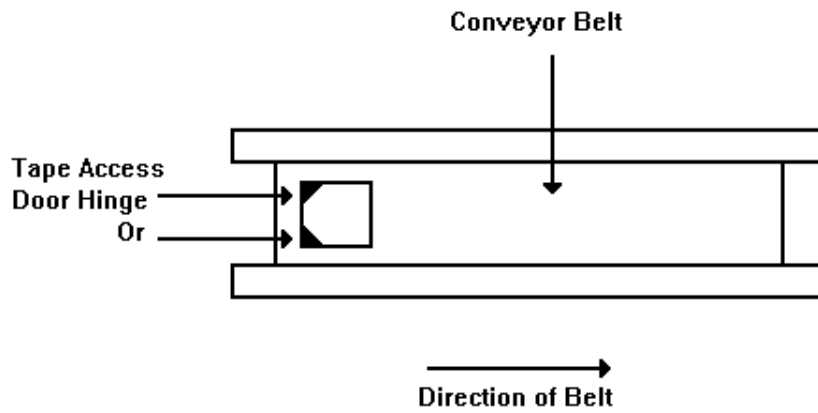
Cartridges

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 V870 contains three axial fans which maximise the operation time 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 V870 is specified for intermittent operation and the sensors will be activated in the event of excessive use. The belt drive motor and coil will automatically re-energise after having cooled sufficiently if the power switch is left 'ON'.

5.3. Conveyor Belt Speed

The conveyor belt is driven by an a.c. synchronous 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 V870 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. V870 MEDIAGAUSSE

PARTS LIST 1 15V 60HZ
ZZ 008 703

Designation	Part No.	Description	Qty
-			
1	MP002215	Chassis	1
2	MP002216	Front cover V870	1
3	MP002135	Rear cover V870	1
4	MP002217	Belt support tray	1
5	MP002126	Roller	2
6	MP002125	Conveyor belt	1
7	MP002124	Bearing collar	4
8	MP002252	Coil/Lam assy	2
9	XX002149	Wiring harness	1
10	MP002213	Baffle	2
11	MP002214	Baffle	1
15	CC100066	Capacitor 25µF	2
16	RS100039	30A Relay 115v	1
17	FM100092	Asyn geared mtr 115v 60Hz	1
19	CM100048	Term Block Multi tab 16A	1
20	SW100109	10A circuit breaker	1
21	FM200082	Chain and link	1
22	MP002233	Chain sprocket	1
23	MP002234	Chain sprocket	1
24	FM100045	Fan 80mm dia 115v	2
25	BB100020	Ball Bearing	4
26	CM100352	Leviton plug 5266-C	1
27	SW100016	Thermostat n/c 100deg	2
28	SW100013	Therm SW n/o 60deg	1
29	CA100300	P Clip 7.5mm	1
30	CA100320	P Clip 3mm	2
31	CA100041	Strain Relief Bush	1
32	CA100219	Grom 12.3mm panel open	4
34	CA200010	Cable, mains	1
35	HS300602	Hole Plug	4
36	CA100340	P Clip 6mm	2
47	HS300604	Snap Rivet Black	10
60	HS200018	Disc Spring	8

7. V870 MEDIAGAUSSE

PARTS LIST 220/240V 50HZ ZZ 008 702

Designation	Part No.	Description	Qty
—			
1	MP002215	Chassis	1
2	MP002216	Front cover V870	1
3	MP002135	Rear cover V870	1
4	MP002217	Belt support tray	1
5	MP002126	Roller	2
6	MP002125	Conveyor belt	1
7	MP002124	Bearing collar	4
8	MP002257	Coil/lam assy V870	2
9	XX002149	Wiring harness	1
10	MP002213	Baffle	2
11	MP002214	Baffle	1
12	MP002294	Capacitor Mtg Brkt	1
15	CC100050	Capacitor 60 μ F	2
16	RS100040	Relay 240v	1
17	FM100092	Asyn geared mtr 115v 60Hz	1
18	TX100060	Transformer (conveyor mtr)	1
19	CM100048	Term block multi tab 16A	1
20	SW100109	10A circuit breaker	1
21	FM200082	Chain and link	1
22	MP002233	Chain sprocket	1
23	MP002234	Chain sprocket	1
24	FM100046	Fan 80mm dia 240v	3
25	BB100020	Ball Bearing	4
27	SW100016	Thermostat n/c 100 deg	2
28	SW100013	Thermostat n/o 60 deg	1
29	CA100300	P clip 7.5mm	1
30	CA100320	P clip 3mm	2
31	CA100041	Strain relief bush	1
32	CA100219	Grom 12.3mm panel open	4
34	CA200010	Cable, mains	1
35	HS300602	Hole Plug	4
36	CA100340	P clip 6mm	2
47	HS300604	Snap Rivet Black	10

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