

**OPERATION AND  
MAINTENANCE MANUAL  
FOR  
GREASE GUZZLER®**

# OPERATION AND MAINTENANCE OF GREASE GUZZLER® LIQUID BIO-FLUID DOSING UNIT

## INDEX

1:	Health and Safety	3
2:	Introduction	4
3:	Customer Operating Instructions	4
APPENDIX I:	Dosage setting	6
APPENDIX II:	Refill Routine	7
APPENDIX III:	Wiring Diagram	8
APPENDIX IV:	Fault Finding	9
APPENDIX V:	Changing Components	9
APPENDIX VI:	Spares List	10
APPENDIX VII:	Health and Safety Data Sheet-Bio-fluid	11

## 1. HEALTH AND SAFETY

### 1.1. United Kingdom Health and Safety at Work Act 1974

Section 6a of this act requires manufacturers to advise their customers on the safety and the handling precautions to be observed when operating, maintaining and servicing their products.

The user's attention is drawn to the following:

All the sections of this manual must be read before working on the equipment.

See bio-fluid Health & Safety Data Sheets

Only suitably trained and qualified personnel must carry out installation.

Normal safety precautions must be taken and appropriate procedures observed to avoid accidents.

Refer to WPL Ltd for any technical advice or product information.

### 1.2. Health

#### Hazards Identification

Excessive ingestion of the bio-fluid may cause nausea or diarrhoea.

May be an irritant to skin and eyes.

#### First Aid Measures

Skin contact: Wash off with plenty of water.

Eye contact: Wash immediately with copious quantity of water.

Ingestion: Rinse mouth and throat and drink water to dilute.

Inhalation: Not applicable.

If symptoms persist seek medical advice.

### 1.3. Safety

#### Important Safety Notice

The Grease Guzzler® is only to be opened by trained personnel.

Before carrying out any maintenance work, the equipment must be electrically isolated.

Ensure that the Grease Guzzler® has its front panel closed and locked, with its operating key removed when unattended, to prevent access by unauthorised personnel.

Ensure that the bio-fluid is handled under good housekeeping practices. Wash hands after use; wear gloves if exposure is prolonged. Care should be taken to ensure the product is not introduced to drinking water or foodstuffs. Store in a dry and cool place. See Appendix VII for Health and Safety Data Sheet.

## 2. INTRODUCTION

### CAUTION

When installing the Grease Guzzler® into an established kitchen, there may be an existing build-up of grease within the drain line. Upon installation, the bio-fluid will begin to degrade the grease, potentially causing it to break away from the pipes in large clumps, which may lead to a blockage. WPL advise that the drain system be pressure washed at the time of installation if there are signs of a grease build up

The Grease Guzzler® is designed to keep drains and grease traps free from build up of fats and greases, eliminating or reducing blockages and the need for manual cleaning.

Grease Guzzler® is fully automatic and, once set up, regulates the amount of biofluid into the system at pre-set intervals during periods of low flow through the drainage system. It ensures that fat and grease build up is kept to a minimum and eliminates or reduces the need for the grease traps to be cleaned out manually.

Pre heating the biofluid to its optimum temperature enables it to pre activate and multiply prior to discharge to the drainage system, thus speeding up the rate at which the grease is broken down.

Grease Guzzler® is suitable for use in the following situations: Restaurants and fast food outlets, hotels, school/office/factory canteens or any establishment with canteen facilities.

### Grease Guzzler® Operation

- Automatic dosing operation
- Manual override via test button

### Safety Features

- Integral Fuse
- Reset push button
- Weight - NO FLUID 20kg
- Weight - WITH FLUID 25kg
- Weight - including full incubation tank and fluid 28kg

### System Requirements

- 220 - 240v, Single phase, 5amp (fused spur)
- Cold water supply
- Discharge point to drain
- Internal wall mounting

### Annual Service & Cleaning Hints (See also 4.6)

From experience in the field, Service Engineers will need approximately 10 minutes to complete the tasks listed below.

- i. Turn power off
- ii. Turn water supply off
- iii. Visually check the bio-product feed pump and piping for residual solids
- iv. Generally clean inside and out with damp cloth
- v. Reassemble and test
- vi. Turn power and water on

**3. CUSTOMERS OPERATION MANUAL FOR GREASE GUZZLER®**

The operation of the WPL Grease Guzzler® is fully automatic and only requires minimal user maintenance once your supplier has commissioned the unit (Item 5, Installation Manual). Your maintenance contract is with your supplier at an agreed interval.

The Grease Guzzler® regulates the dosing of a solution, known as biofluid, containing active bacteria and enzymes into your drain lines at a set time each day, normally when the kitchen has closed for the night or at a pre-determined quiet period. This active solution will assist in keeping the drain lines free from build up of fats, grease and oils. The complete cycle is pre-set for a period normally between two and five hours during which time the solution is held at 38-40°C to activate the bacteria.

You can monitor the automatic operation using a series of indicator lights provided on the front panel. All lights have a description adjacent, a full explanation of the purpose follows:-

- Bio-Fluid Low/Call Engineer indicates when biofluid supply is low, contact service engineer.
- Power On Indicates the electrical supply is live
- Heater On Indicates the activity of the heater

**4. SEQUENCE OF OPERATION: -**

At all times the POWER ON should be illuminated. During the operating cycle the following sequence can be observed:

‘On Lamp’ on - heating on lamp will go off when the water is at the required temperature and will then periodically come on to maintain the desired temperature.

**4.1. Operating Instructions**

**Important Safety Notice**

Only a qualified technician may open the Grease Guzzler®. Before opening the door, isolate the machine from the mains electricity supply. Ensure that the Grease Guzzler® has its door shut and locked, with its operating key removed, when unattended to prevent access by unauthorised personnel.

**4.2. Setting up of daily dosage**

Please refer to Appendix I for details of how to set up multi-dosing. The unit is pre-set to one dose per day.

Ensure that there is power supplied to the Grease Guzzler® (Power on indicator illuminated)

Ensure that there is an adequate water supply to the Grease Guzzler® so that the tank fills in a MINIMUM of one (1) minute.

**4.3. For test operation of the Grease Guzzler®**

Press the red push-button for a count of ten seconds and the test run will automatically come into operation. All lights will come on, bacteria feed pump will operate and the heater pad will come on.

This can be checked through the specifically designed aperture.

**4.4. Capacities and consumption rates (Approximate)**

- Bio-fluid bag capacity = Six months supply at one dose per day
- Mixing tank capacity = 2.5 litres (Liquid capacity/dispense rate/cycle at 35 to 40 C)
- Dosing rate = Up to 4 cycles per day, with a minimum of 6 hours between dosing.
- Bio-fluid consumption = 25 ml per cycle

**4.5. Dimensions: Enclosure (width x height x depth) = 530 x 560 x 200 mm**

Check	Method	Interval
Bio-Fluid level	Bio-Fluid warning light	Weekly
Function Check	Press/flick the test button/switch for 10 seconds and observe the test cycle.	Six monthly
Cleanliness	Wash down the outside of the machine to remove any spillage and dirt build up.	Weekly
De-scaling and Cleaning	Add a de-scaling solution to boiling water and pour into the incubation tank. Leave the solution in the tank for five minutes and run the test cycle once. Once de-scaling is complete, continue to use as normal.	Annual

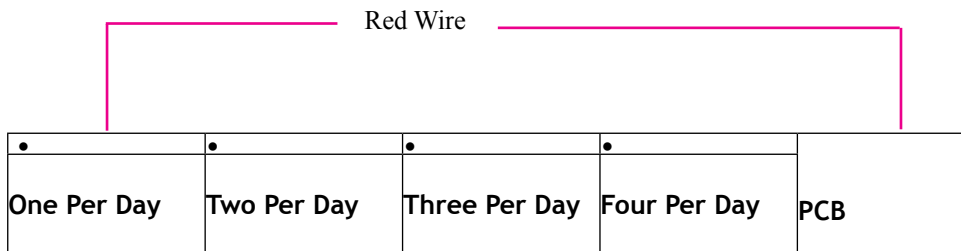
#### 4.6 Maintenance routine

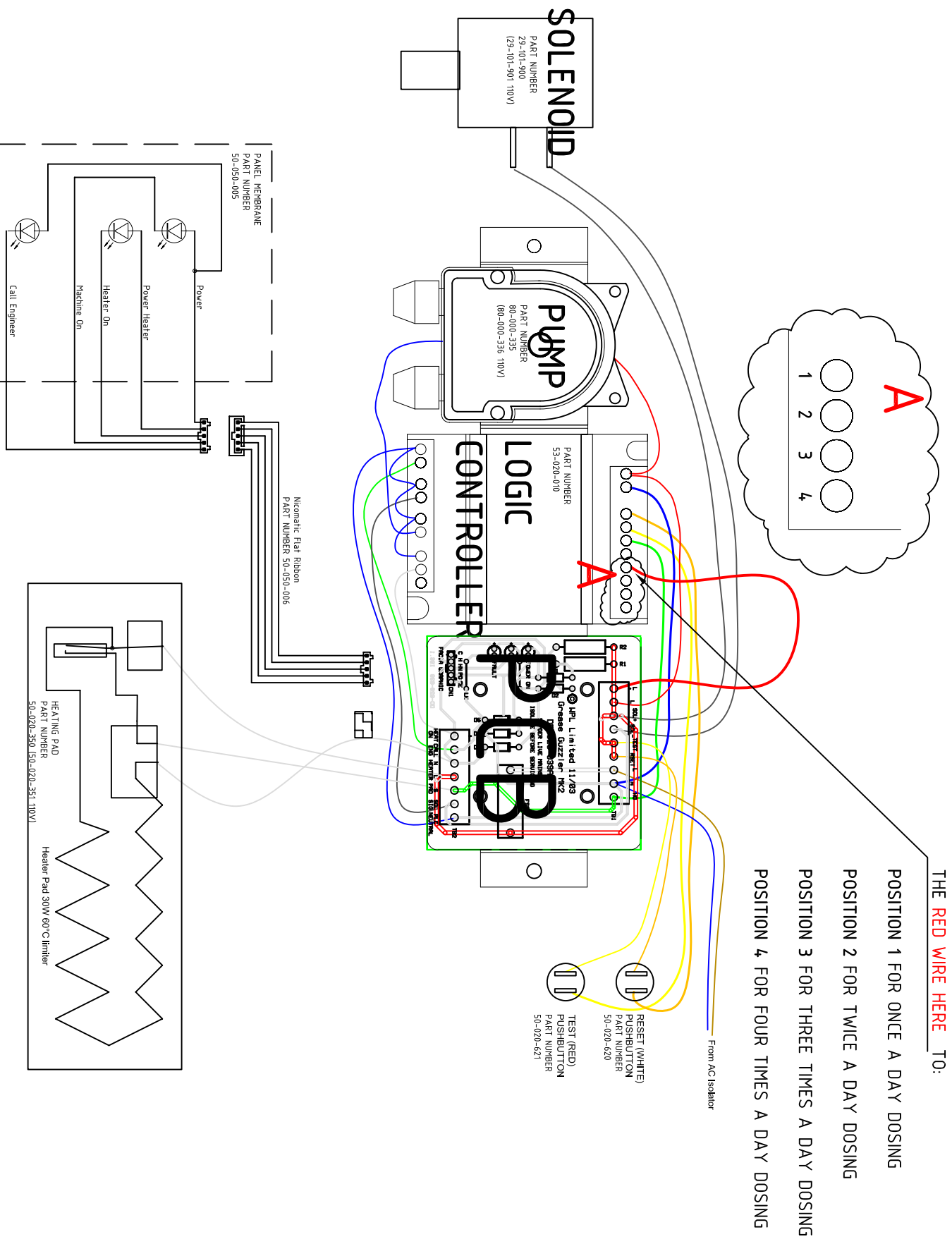
The following checks to be carried out at the intervals shown below.

## APPENDIX I Daily Dosing Settings

The Grease Guzzler® will normally leave the factory with the switches in the default position, i.e. once per day.

Follow the drawing below to amend any dosing schedule. Wiring is shown as default, one dose per day. Adjust the wiring to the dosing regime required. Refer to Health and Safety section (page 3) before making any amendments.





# APPENDIX II

# Filling Routine

## Refill Period

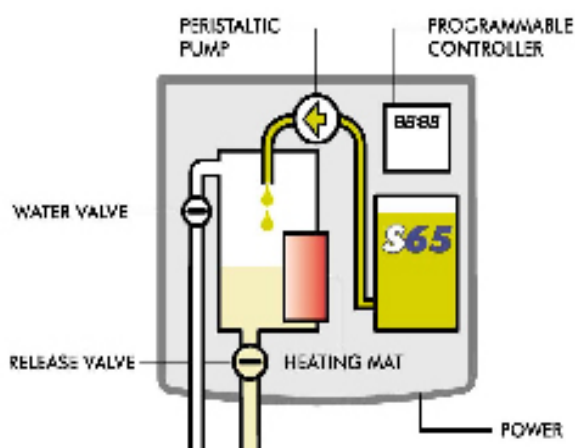
The period between refills for the bio-fluid is dependent upon the number of cycles run during the day. For installations where there is a considerable amount of fats and greases discharged to the waste water system, it may be necessary to run up to four cycles per day. For light fat and grease discharge, once a day may be sufficient. The times shown are as a guide only and the discharge should be set to coincide with periods of zero or low flow through the drainage network. to maximise biofluid effeciveness The system is factory pre-set for one daily dosing to the drains.

Refilling Regime	On	Off	On	Off	On	Off	On	Off
	The unit doses the drain system at the following times, during this time the dose valve will open for six (6) seconds							
In once per day mode	00.30							
In twice per day mode	00.30	09.00						
In thrice per day mode	00.30	08.00	16.00					
In four per day mode	00.00	06.00	12.00	18.00				

Refilling Regime	On	Off	On	Off	On	Off	On	Off
	The heating mat cycles on and off during the following times							
In once per day mode	16.30	00.30						
In twice per day mode	16.30	00.30	01.00	09.00				
In thrice per day mode	16.01	00.30	00.01	08.00	08.01	16.00		
In four per day mode	18.01	00.00	00.01	06.00	06.01	12.00	12.01	18.00

Refilling Regime	On	Off	On	Off	On	Off	On	Off
	The feed pump will feed 25 ml of bio-fluid to the mixing tank at the following times							
In once per day mode	16.30							
In twice per day mode	16.30	01.00						
In thrice per day mode	16.01	00.01	08.01					
In four per day mode	18.01	00.01	06.01	12.01				

## System Layout



# APPENDIX IV

# Fault Finding

For details of how to remove any component see Appendix VI. Consumable can be ordered through your local Grease Guzzler Supplier. Alternatively, you can contact WPL Limited directly.

**Chart No.1 Electrical Faults**

Symptom	Cause	Cure
No power or intermittent power to all or any circuit	Supply fault to unit	Check fuse in RCD spur
No lamps, including 'Power On' illuminated	Mains fuse or poor connection	1. Check fuse & both line and neutral continuity 2. Check internal fuse
'Heater On' not illuminated	The unit may be at temperature or not in heating cycle	To check run test cycle

**Chart No.2 - Mechanical and Electro-mechanical faults**

Symptom	Cause	Cure
No Bio fluid used	Faulty pump	Check operation with test run
Dosing tank does not heat up	Faulty electrical connections or heater	Return to factory, fit new heater pad
Dosing tank does not empty	1. Solenoid faulty	1. Check operation with test run 2. Return to factory, fit new solenoid
	2. Blocked drain line prevents discharge	3. Clear drain line
Dosing tank does not fill or overflows	1. Fill valve faulty 2. No mains water or very low pressure	1. Check water supply or change the valve. 2. Check the water supply

## APPENDIX V

## Changing Components

**Important:** Electrical and water supply must be isolated from the unit before any work is carried out. It is recommended that only ONE component be changed at a time, with a test on function between each change. Supply must be isolated at each stage before any further work is carried out.

Before removing any suspect component it is advisable to check that there are no faults in the control system or the supply, both electrical and water, to the item in question. See Appendix V for fault location.

### 7. Bio-product Feed Pump

- i. This operation serves a dual purpose in removing the pump and carrying out an in situ service
- ii. Undo pump bracket from machine chassis by undoing two M5 Nylok nuts
- iii. Remove the two cross-headed screws from the front of the pump and remove cover
- iv. Unclip the black spring clip on the back of the motor. Using a flat-headed screwdriver gently prise the motor off.
- v. With the motor removed two more cross-headed screws will need to be taken out in order to remove the pump itself. Again, this will need to be gently prised away with a screwdriver.
- vi. Fit new pump in the reverse order to removal.
- vii. Re-connect supplies and test.

### 8. Flush Solenoid

- i. Disconnect electrical leads.
  - ii. Release both sides of the valve by unscrewing the gland nuts. Also release the 'T' piece at the outlet from the mixing tank to allow the pipes to be withdrawn from the valve
  - iii. TAKE CARE NOT TO DAMAGE THE RIBBON .
  - iv. Remove the solenoid.
  - v. Fit new solenoid in the reverse order to removal.
  - vi. Re-connect supplies and test.

## APPENDIX VI

## Spares List

Description	Part Number
Heater mat	50-020-350
Membrane display	50-050-005
Ribbon connectors	50-050-006
Water valve solenoid	29-101-900
PCB assembly	DD-620-039
Controller	53-020-010
Push button RED	50-020-621
Push button WHITE	50-020-620
Connector bio-white	DD-620-028
Seal, door	80-100-050
Valve Flush	25-990-020
Valve Float Bottom	25-990-010

1 Commercial Product Name Supplier **S65** (For use only in WPL Grease Guzzler®)

WPL Ltd.

Units 1 & 2 Aston Road, Waterlooville, Hampshire. PO7 7UX.

Tel. 02392 242600 Fax. 02392 242624

**2 Composition** Naturally occurring soil biocatalyst, proprietary organic biodegradable materials and nutrients. This product, S65, belongs to the Fluid Category 4 according to Statutory Instrument 1999 No. 1148 The Water Supply (Water Fittings) Regulations 1999.

**3 Hazards Identification** Dermal exposure may cause mild irritation of skin. Avoid contact. Moderately irritating to the eyes

**4 First Aid Measures**

Skin contact:	Wash with soap and water. If irritation persists consult doctor
Eye contact:	Flush with clean water for at least 15 minutes. If irritation develops seek attention.
Ingestion:	Do not induce vomiting, get medical help
Inhalation:	Remove to fresh air, get medical help

**If symptoms persist seek medical advice**

**5 Fire Fighting** Extinguishing media: Use appropriate media for underlying cause of fire  
Hazardous combustion gases: None

**6 Accidental Release** After spillage/leakage: Sweep up and recover or mix with absorbent and shovel into an appropriate container for disposal. Wash spilled area with disinfectant. Dispose of in accordance with local and state regulations.

Cleaning of equipment: Wash with plenty of water

**7 Handling/Storage** All materials should be handled under good housekeeping practices: wash hands after use; wear gloves if exposure is prolonged. Care should be taken to ensure product is not introduced to drinking water or foodstuffs. Store in a dry and cool place, within temperature range 5-35 deg. C. Avoid direct sunlight. Keep away from strong oxidisers, strong acid, alkali and organic solvents.

**8 Exposure Controls**

Respiratory protection:	Approved dust mask as required
<b>Personal Protection</b>	Hand protection: Gloves recommended
Eye protection:	Recommended when handling large quantities

**9 Physical/Chemical Properties**

Appearance:	Liquid
Colour	Brown
Odour	Characteristic
pH:	6-7.5
Boiling point:	100°C
Melting point:	Not applicable
Flash Point	Not Applicable
Ignition Point	No data
Explosion limits	No data
Density (Kg/dm <sup>3</sup> )	1.02
Vapour pressure	
Viscosity	
Solubility in water	99.5%
Partition coefficient in n-octanol/water	

<b>10 Stability and Reactivity</b>	Material is stable under normal conditions of use			
	Known hazardous reactions:	None		
	Hazardous decomposition products:	None		
<b>11 Toxicological Information</b>	Toxicity:	No acute toxicity		
	Pathogenicity:	Component bacteria are non-pathogenic and generally regarded as safe		
	Carcinogenicity:	No known carcinogens		
	LD50 acute oral	No		
<b>12 Ecological Information</b>	Product believed not to be dangerous to the environment with respect to mobility, persistency and degradability, bioaccumulative potential, aquatic toxicity and other data relating to ecotoxicity			
<b>13 Disposal considerations</b>	Disposal should be in accordance with local authority regulations			
<b>14 Transport</b>	Regulations	Class	UN-Nr	PGr
	RID/ADR	not classified		
	ICAO/IATA-DGR	not classified		
	GGVSee/IMDG-Code:	not classified		
<b>15 Regulatory Information</b>	Label name:	S65		
	Symbols:	None		
	Risk phrases:	None		
	Safety phrases:	Keep away from children.		
	Labelling according to EC directives.			
<b>16 Other</b>	Product should be stored, handled and used in accordance with good industrial hygiene practices and in conformity with legal regulations. The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should therefore not be construed as guaranteeing specific properties. All information contained within this Health and Safety Data Sheet is believed to be true and correct as at date of issue. However, the accuracy and completeness of the information and any recommendations or suggestions are made without warranty or guarantee. As conditions of use are beyond the control of WPL, responsibility for safe use lies with the user.			