

Simplex Anaesthetic Gas Scavenging System Control Panel

Installation & Operation

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Shire Controls Ltd

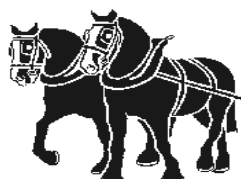
Studio 3 Channoeks Farm

Gilston

Harlow

Essex

CM20 2RL



About this manual.



When you see this symbol, the associated text in **bold** type refers to Something which may cause danger or damage.

Environment.

This control panel is designed to be used in a dry environment with no abnormal levels of airborne dust. It is designed to work within the following parameters.

Temperature +5 to +35 deg.C. (+40 deg.C. Maximum)

Max. Humidity 90% RH Max.

Altitude 1000m above sea level

For areas which may be washed down, a remote control unit protected to IP 64 is available.

Mounting.

Consideration should be given to the likelihood of the control panel being struck by passing traffic & additional protection provided if necessary.

Electrical Connections.



The control panel must be supplied from a fused switch, complying ~ with .EN60947-3, category AC-23B, with provision for locking in the OFF position, mounted between 0.6 and 1.9 metres above the servicing level in an easily accessible position. The fuses must be capable of breaking the prospective short circuit current. The fuse rating must not exceed 13 Amps. Motor rated fuses should be used, using the nearest value above the running current of the motor. The earth fault loop impedance of the supply at the plant terminals must not exceed 1 ohm.

Three phase plant.

Note. This plant requires a neutral. See Drawing WAGB8

Single phase

See Drawing WAGB 10

All plant.



Do not use this control panel with any control, indication or interface system other than that supplied by the manufacturers. A relay interface is available giving volt-free contacts rated at 5 amps, 240 volt resistive, for Power on, System on and System failed signals, and providing input terminals for control from volt-free contacts.

When using remote control units or relay interfaces, connect the terminals on the lower edge of the printed circuit board in the control panel marked RUN, SF, -Ve,+Ve & CTL to the corresponding terminals on the remote control units or relay interfaces. A maximum of 6 remote control units may be used with a control panel. The voltage drop on the cable to the remote control units should not exceed 1.2 volts.(the current drawn is .017 amps per remote control unit + .03 amps . 6 remote control units could be used on 300 M of 1.5mm cable) Cable exceeding 2.5mm should not be used.

When using a relay interface, connect the terminals marked "Local" on the relay interface to the contacts which will control the plant e.g. theatre panel switch.



These contacts must be volt-free. Use the contacts on the relay interface to switch other circuits as required. **When using the relay interface to switch indicator lamps on theatre panels etc. we strongly recommend that both System On and System Failed conditions are displayed as a minimum,** and that lamps are used which are of equal brightness and reliability to the lamps used on the standard remote control unit, When not using remote control units or relay interfaces, link the terminals marked +Ve & CTL.

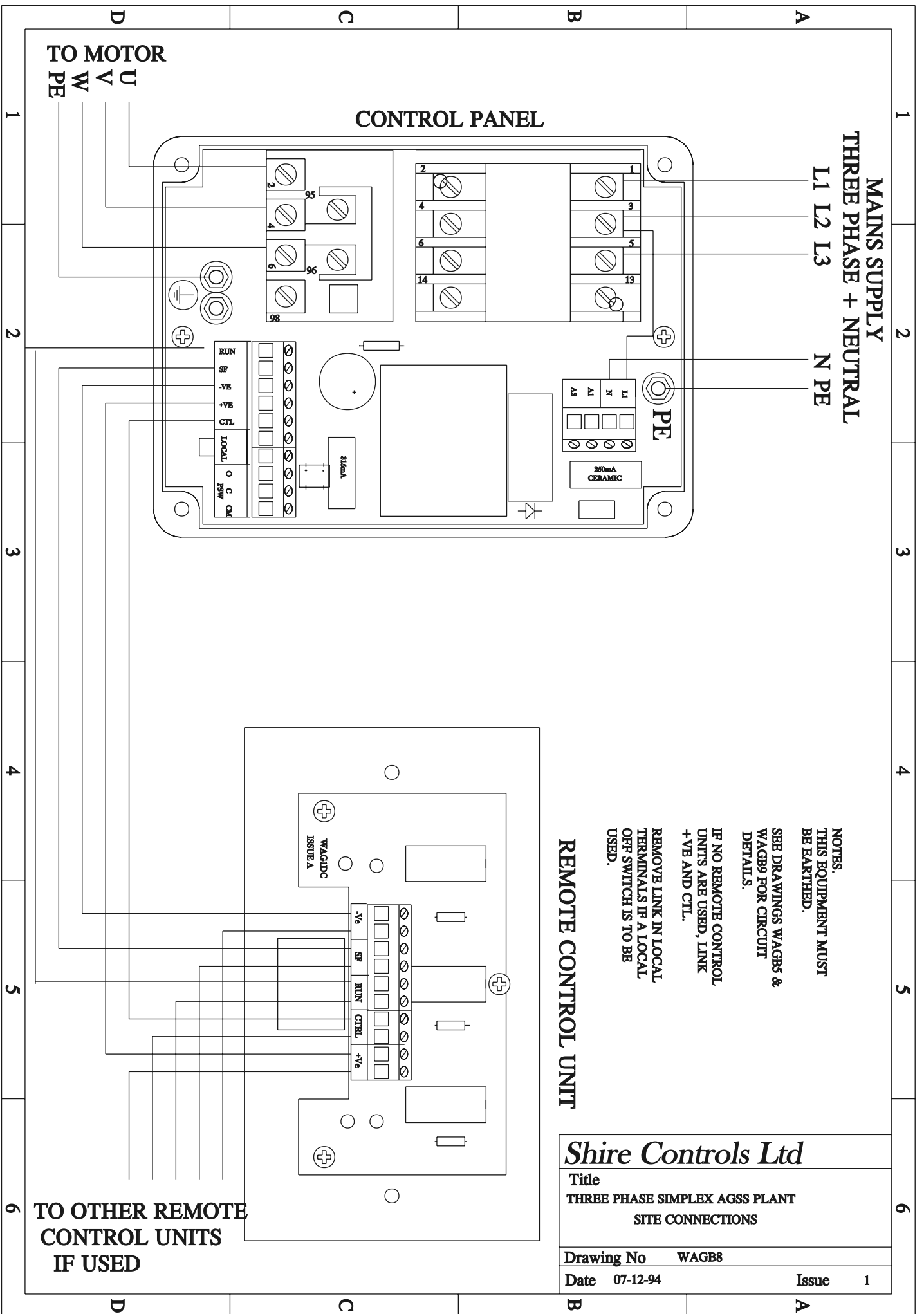
A local OFF switch may be connected to the terminals marked LOCAL. When this switch is off, the plant will not run. When it is on, the plant will run when an remote control unit is turned on.

This switch must not be used to prevent the pump starting whilst maintenance is carried out on the plant. If the location or installation of the plant requires a stop button local to the plant, a lock-off emergency stop button or similar device should be connected across the LOCAL terminals in the control panel after removing the link.

Operation.

Switching on any remote control unit will start the plant. Indication of system on or system failure will only be given at any remote control unit which is switched on. Any units switched off will show power on only. The plant will continue to run until all remote control units are switched off. On initial start-up, the system failure lamp will show momentarily as the pump produces a vacuum in the pipeline. This will change to system on as vacuum is produced. Maintenance. The inlet filters should be checked periodically & cleaned or replaced as necessary. Access to the filters is by removal of the finned cover on the end of the pump. The frequency of this inspection will depend on operating environment & should be determined by experience.

Every 6 months. Disconnect the suction hose from the plant. Go to each remote control unit or other point at which the plant conditions are displayed in turn. Turn the plant on & check that the System Failed lamp comes on. Turn off the plant & repeat for all other control positions.



**MAINS SUPPLY
THREE PHASE + NEUTRAL**
L1 L2 L3
N PE

NOTES:
THIS EQUIPMENT MUST
BE EARTHED.
SEE DRAWINGS WAGB5 &
WAGB9 FOR CIRCUIT
DETAILS.
IF NO REMOTE CONTROL
UNITS ARE USED, LINK
+VE AND CTL.
REMOVE LINK IN LOCAL
TERMINALS IF A LOCAL
OFF SWITCH IS TO BE
USED.

REMOTE CONTROL UNIT

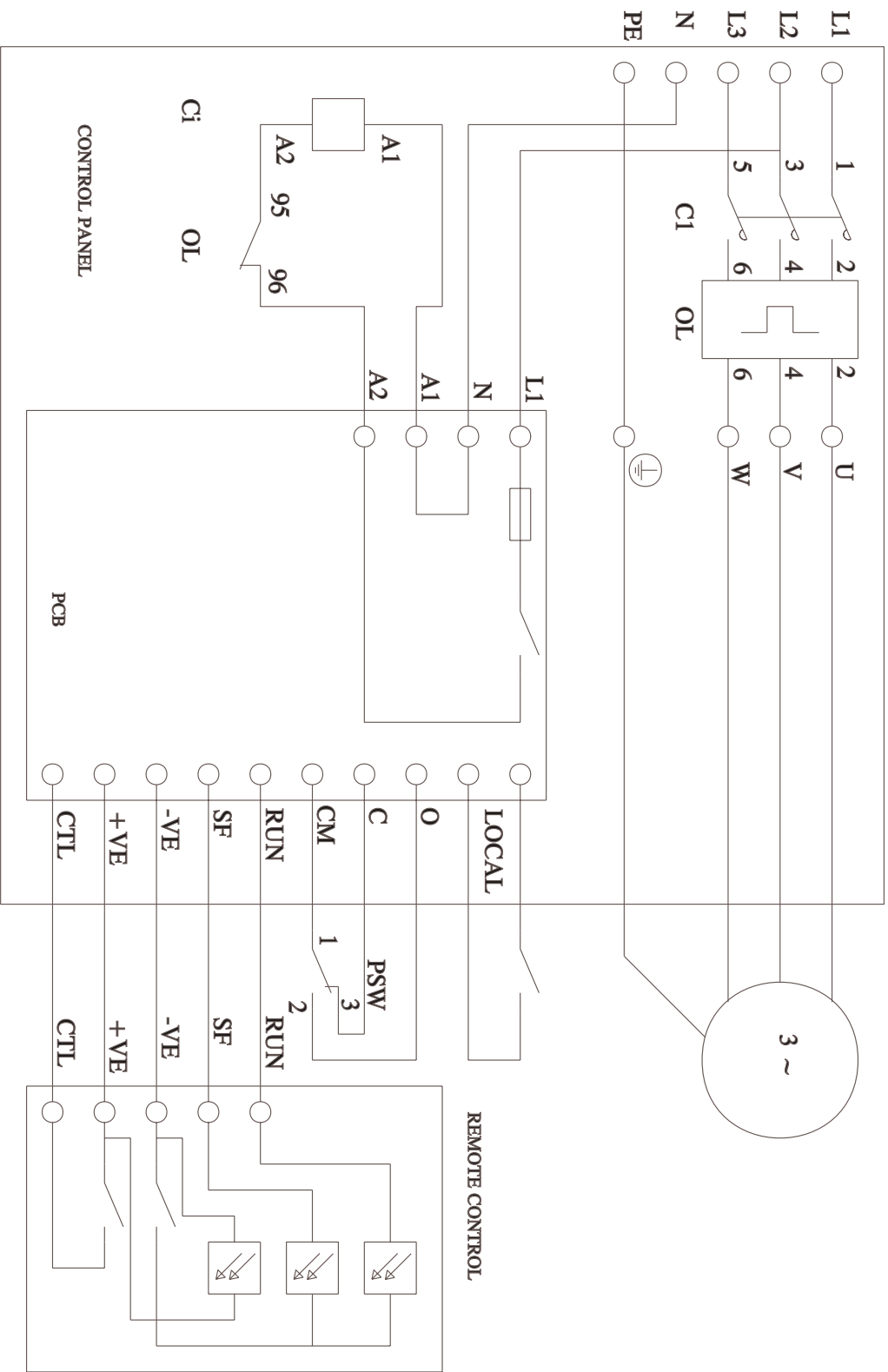
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Title
**THREE PHASE SIMPLEX AGSS PLANT
SITE CONNECTIONS**

Drawing No **WAGB8**

Date **07-12-94**

Issue **1**



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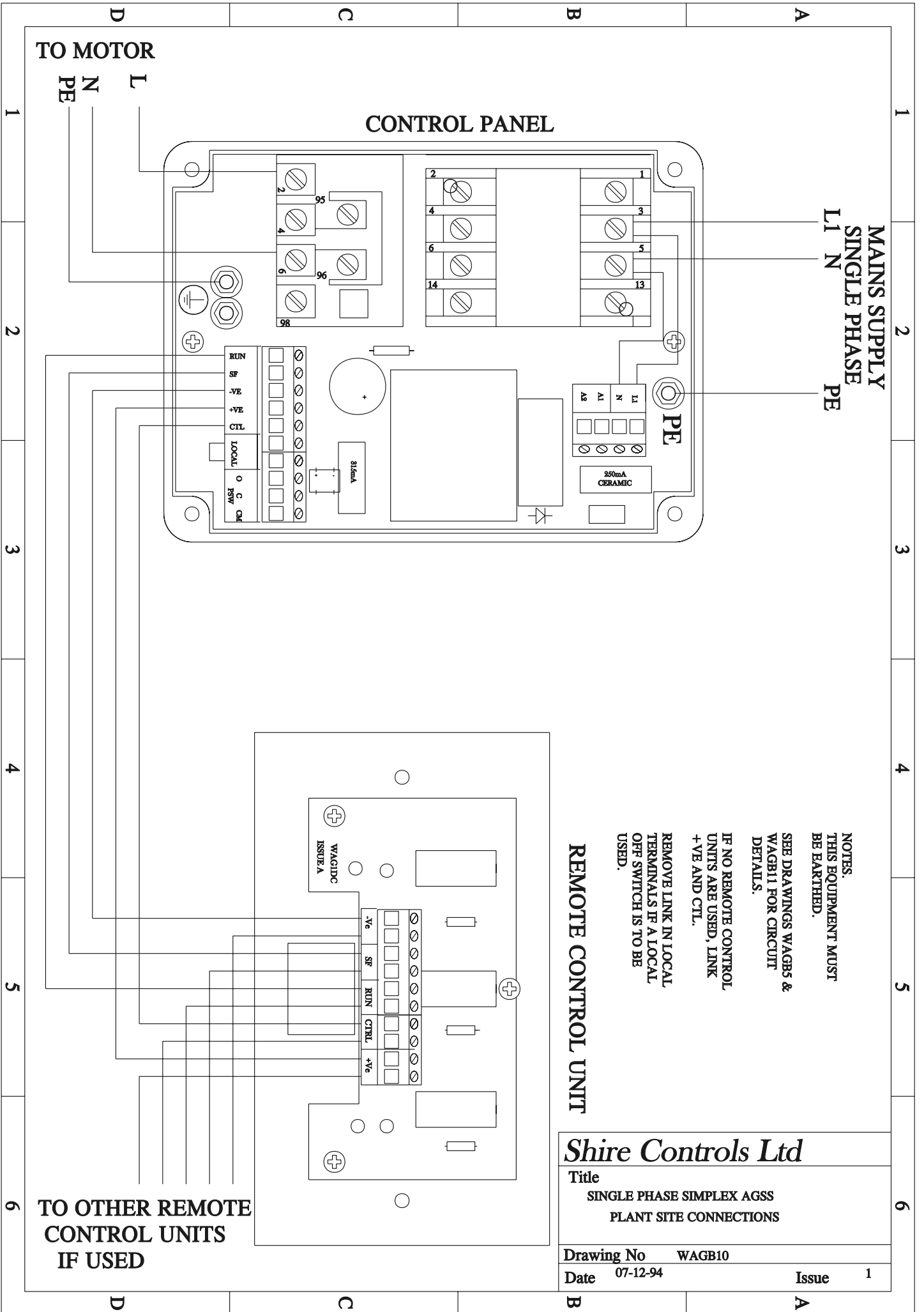
Title

THREE PHASE SIMPLEX AGSS PLANT
CIRCUIT DIAGRAM

Drawing No WAGB9

Date 08-12-94

Issue 1



**MAINS SUPPLY
SINGLE PHASE**
L1 N PE

TO MOTOR
L
N
PE

CONTROL PANEL

REMOTE CONTROL UNIT

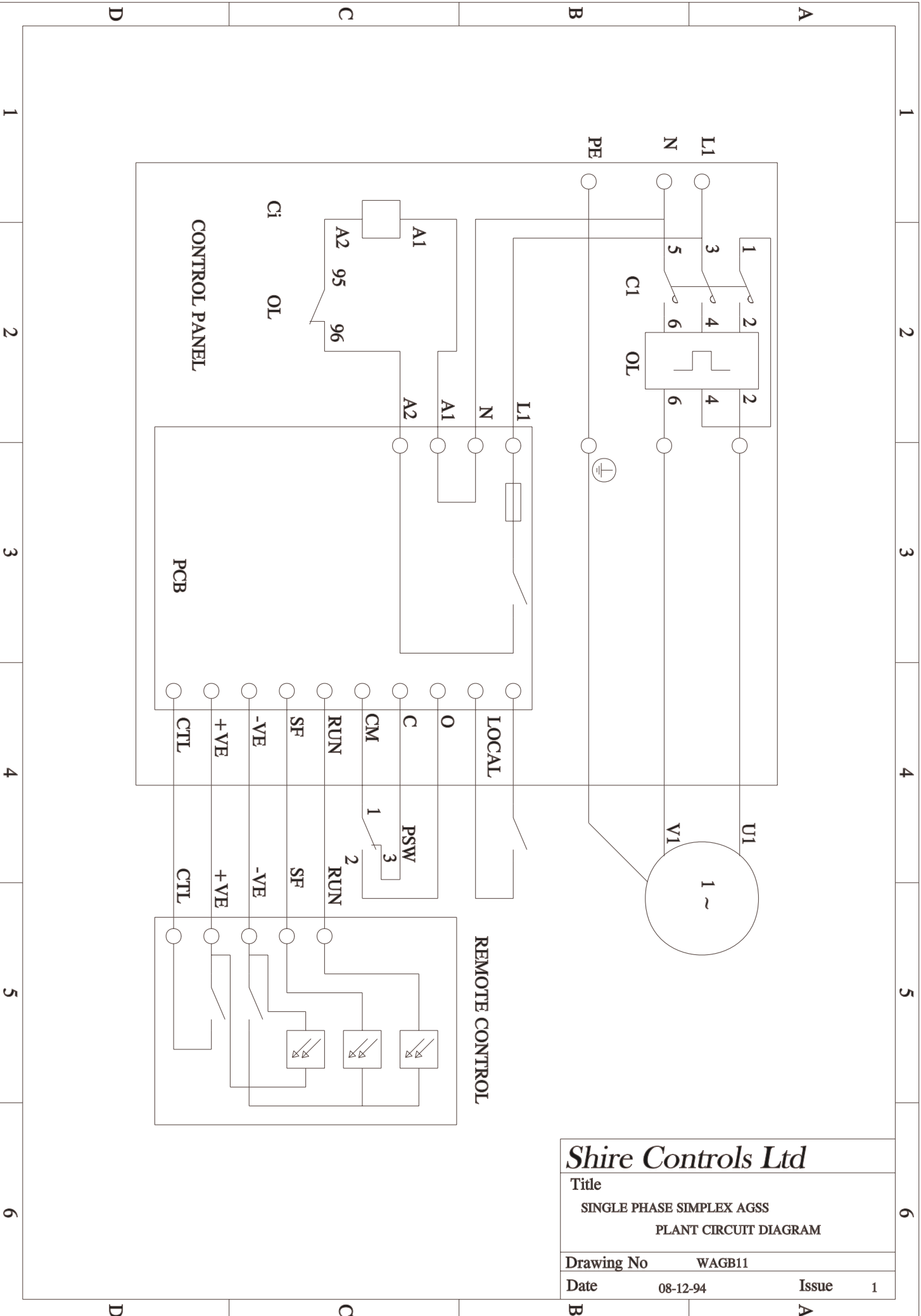
**TO OTHER REMOTE
CONTROL UNITS
IF USED**

NOTES.
THIS EQUIPMENT MUST
BE EARTHED.
SEE DRAWINGS WAGB5 &
WAGB1 FOR CIRCUIT
DETAILS.
IF NO REMOTE CONTROL
UNITS ARE USED, LINK
+VE AND CTRL.
REMOVE LINK IN LOCAL
TERMINALS IF A LOCAL
OFF SWITCH IS TO BE
USED.

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Title
SINGLE PHASE SIMPLEX AGSS
PLANT SITE CONNECTIONS

Drawing No WAGB10
Date 07-12-94
Issue 1



Shire Controls Ltd		
Title		
SINGLE PHASE SIMPLEX AGSS PLANT CIRCUIT DIAGRAM		
Drawing No	WAGB11	
Date	08-12-94	Issue 1

**DECLARATION OF
CONFORMITY**
73/23/EEC
89/336/EEC The EMC Directive

Manufacturer

Shire Controls Ltd
Studio 3
Channoeks Farm
Gilston
Harlow
Essex
CM20 2RL
United Kingdom

Product Type

Simplex Anaesthetic Gas Scavenging Plant Control Panel

Model..... Serial No..... Voltage V
Current..... A Phases..... Frequency Hz
Maximum Prospective Fault Current..... kA
Drawing No WAGB5 issue 2
Year of manufacture

Standards used

BS EN 60204-1:1993 B S EN 50081-1
BS EN 50082-1 BS EN 61000-3-2

Authorized representative
I.R.Couchman Technical Director
Signature

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