Intelligas Limited

Installation instructions for the Intelligas-GSS

Read these instructions carefully and before attempting installation

For support please call: 02381290444

These instructions

Please read these instructions fully. Incorrect operation, damage to the unit or failure of the unit to perform may result if these instructions are not followed.

Please only contact our technical department once these instructions have been meticulously followed.

Take note of the green information bubbles throughout these instructions. They contain helpful hints, provided by engineers like yourself, to aid with installation.

Siting the panel

First of all choose a suitable mounting position for the control panel. Mount the unit away from sources of heat and ensure adequate space around the panel for ventilation.

Ensure the panel is placed in a position where mechanical damage is unlikely and where it can be easily accessed for use and maintenance. Access to the emergency stop button on the panel must be maintained for emergency isolation of the gas.

Fix the panel using the marked enclosure holes only, take care not to damage the internal wiring or PCB of the unit when drilling. If necessary, carefully remove the PCB from the rear of the enclosure and set aside while fixing the panel.

DO NOT BRING WIRING INTO THE ENCLOSURE BEHIND THE PCB

Field wiring

Wiring from the supply and to the gas valve carries mains voltage (230v ac nominal). The current edition of the IEE Wiring Regulations should be strictly adhered to. Wiring and connections should be made by a suitably qualified electrician or competent person.
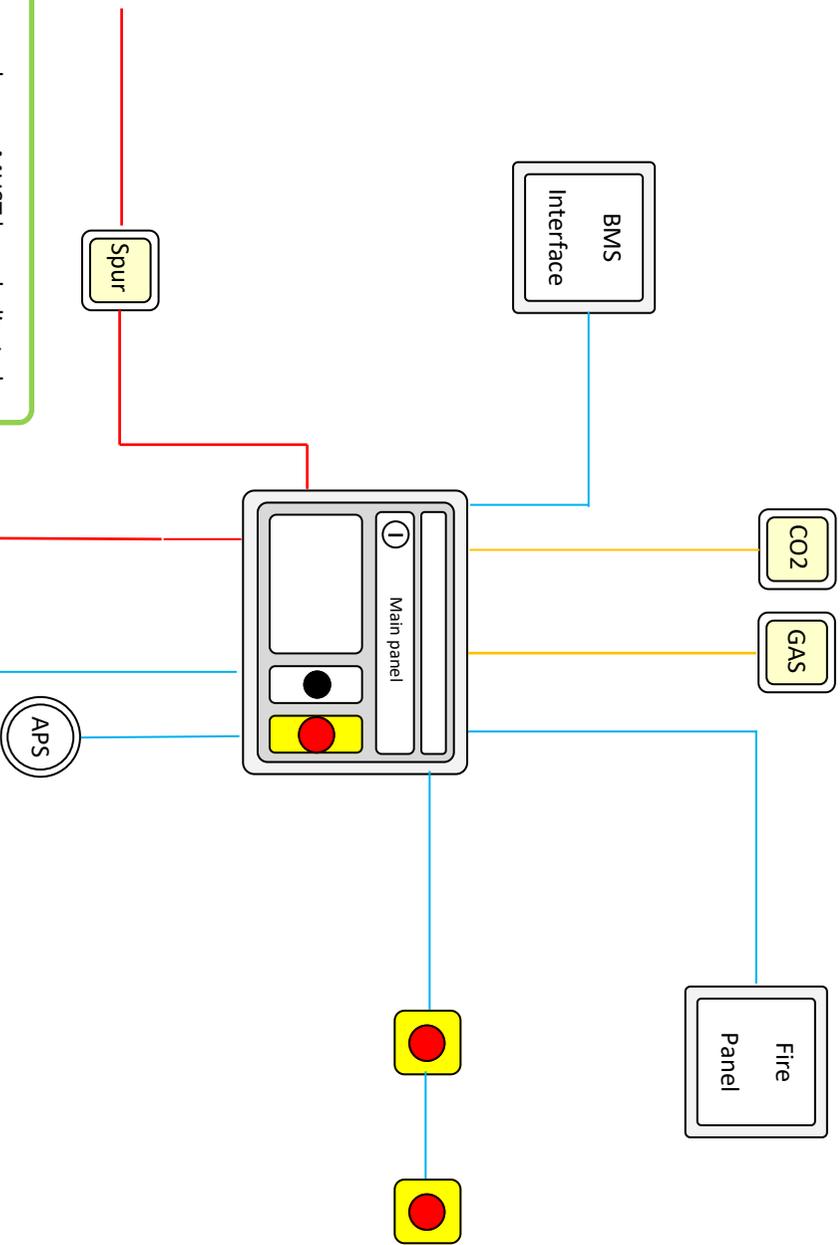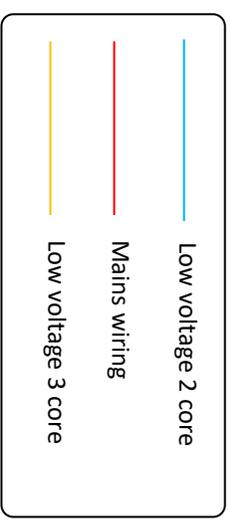
Only the supply and the gas valve output is mains voltage. Do not connect mains voltages to any other terminals in the panel

IHS recommends the use of FP200 or similar type of wiring for the mains, fixed wiring installation. Low voltage cabling such as screened belden (rated at mains voltage) can be used for the low voltage wiring.

Refer to the wiring schematic for cable types and requirements.

Gas Schematic

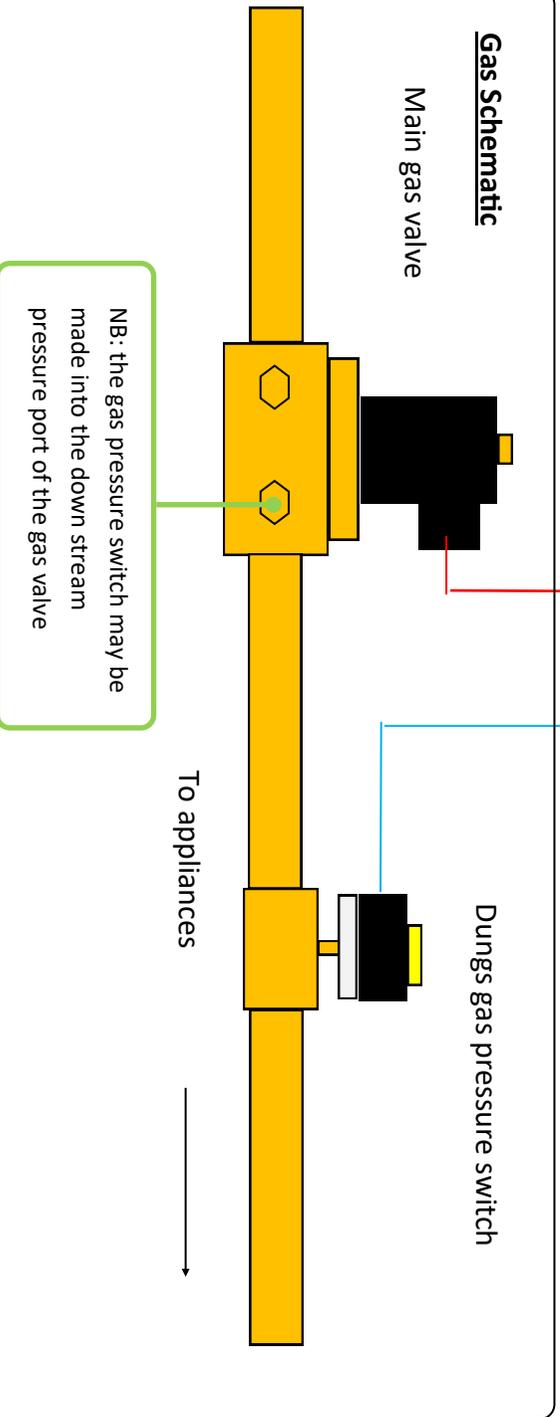Main gas valve

NB: the gas pressure switch may be made into the down stream pressure port of the gas valve

The supply spur MUST be a dedicated supply for the EGIP. Do not supply the fans from the same supply

To appliances

Dungs gas pressure switch

Use either air pressure switches or a fan current sensor (fcs-2) for any ventilation fan interlocks

Spur

BMS Interface

CO2

GAS

Main panel

APS

Fire Panel

Low voltage 2 core

Mains wiring

Low voltage 3 core

Connecting gas detectors to the IGSS & Using the switched input module (SIM)

The gas detection terminals of the IHSGSS have been designed to accept inputs from industry standard detectors having a 0-10 volt output.

This can be changed to a switched input using a SIM

0-10v operation setup

Using the dip switches on the right hand side of the PCB set up the system and let it know if gas detection is being used, how many channels and if the input type is switched or 0-10v

Switch 4 on   gas detection in use

Switch 4 off   Gas detection not in use

Switch 5 on   inputs 1 & 2 being used

Switch 5 off   input 1 being used

Switch 6 on   SIM in use

Switch 6 off   0-10v input in use

In 0-10v operation the detector can be powered from the 24v and ground connections provided for each detection channel. The 0-10v signal should be connected into the terminal marked "sig". The trip point can be set using the pots marked 1 & 2 on the PCB 0-10v is 0 - 100% of the scale of the pot.

If using the SIM, connect the 3 prongs into the terminals for that channel, then connect the detectors relay input into the 2 terminal on the SIM remembering that the circuit needs to be normally closed and open in alarm.

See diagram to the right for connections and dip switches.

When 0-10v mode is selected, pots 1 & 2 are used to set the alarm point of the gas detector. Each 10% is = to 1 volt from the detector. Warning level is calculated in the software, automatically.
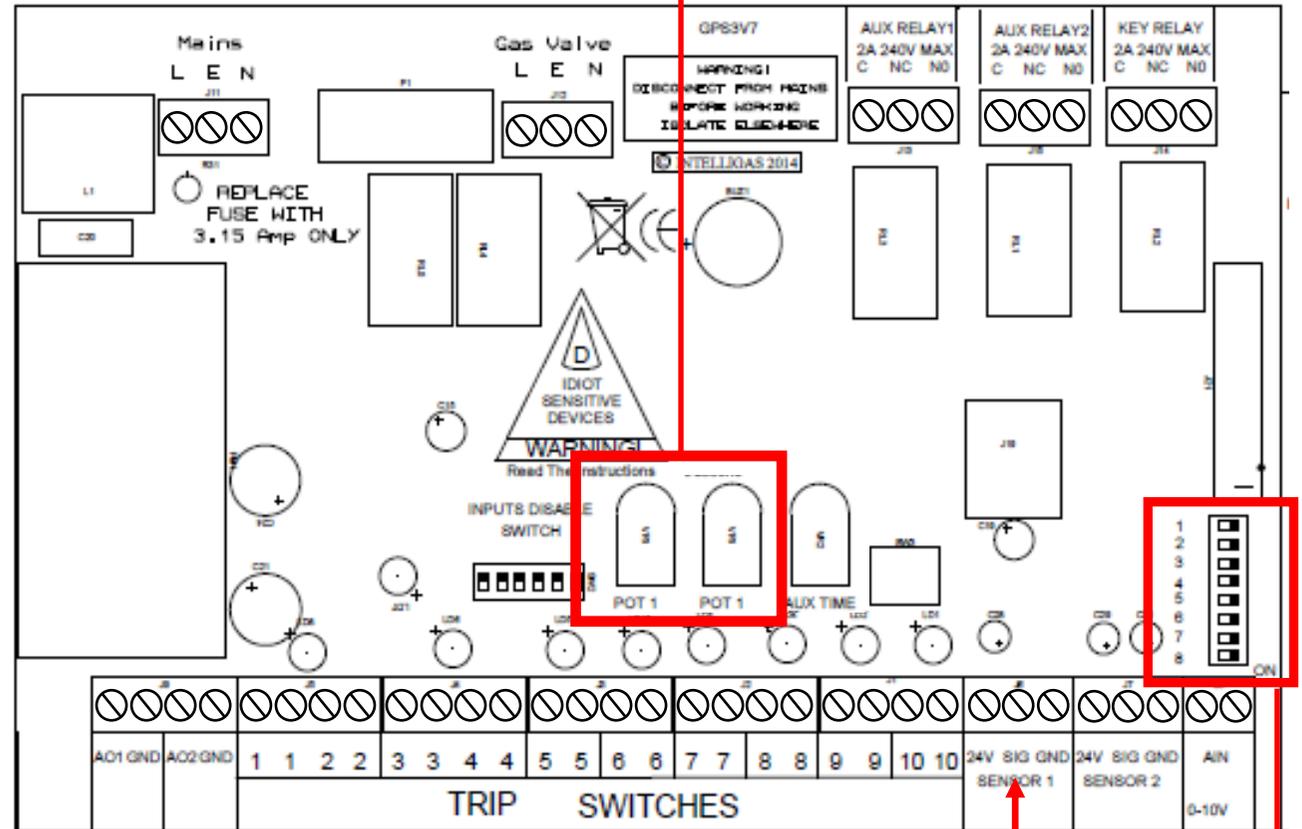
Dip switches referred to in the description
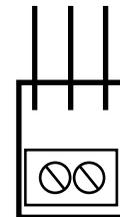
Relay output functions, auto restart and mains wiring.

One function of the GHSISS is when gas proving is used the system can automatically restore the gas supply to a plant room after a mains failure.
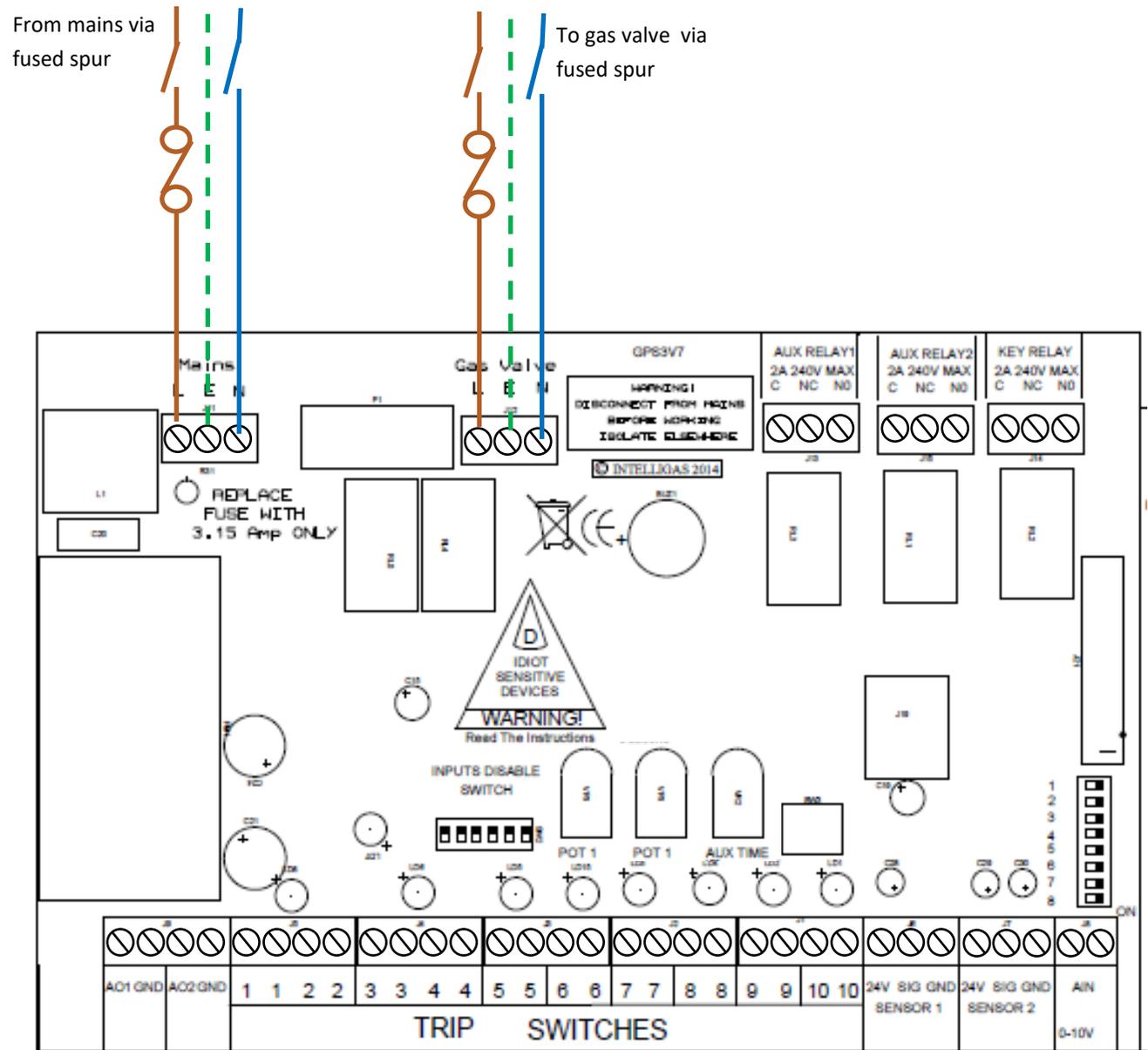
Aux relay 1 should be used to interrupt the boiler fire signal or signal the a BMS system to withhold the boilers. Relay 1 will change state once the GSS has successfully and automatically restored the gas supply to the plant room.

There is a delay of 5 minutes from the power being restored before the system will attempt to re-instate the gas supply. This is in order to allow gas detectors to warm up and any boiler controls to reset. During this time many of the inputs to the system will be ignored.

Switch this feature on by selecting dip switch 8 while the poser is off.

NB when you turn the panel on it will automatically attempt to connect the gas supply.

Aux relay 2 is a common fault output. It will change state on any trip condition. It can be used to signal sounders or strobes etc.

From mains via fused spur

To gas valve via fused spur

Mains L E N

Gas Valve L E N

GP83V7

WARNING!
DISCONNECT FROM MAINS
BEFORE WORKING
ISOLATE ELSEWHERE

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AUX RELAY1
2A 240V MAX
C   NC   NO

AUX RELAY2
2A 240V MAX
C   NC   NO

KEY RELAY
2A 240V MAX
C   NC   NO

REPLACE FUSE WITH 3.15 Amp ONLY

IDIOT SENSITIVE DEVICES

WARNING!
Read The Instructions

INPUTS DISABLE SWITCH

POT 1   POT 1   AUX TIME

AO1 GND   AO2 GND   1 1   2 2   3 3   4 4   5 5   6 6   7 7   8 8   9 9   10 10   24V SIG GND SENSOR 1   24V SIG GND SENSOR 2   AIN

TRIP   SWITCHES

0-10V

Connection of external devices and using the inputs disable switches.

Terminal numbers	Function
1,1	Emergency stop
2,2	Emergency stop

bypass the above terminals using the input disable switch "1". Note: this does not isolate the emergency stop on the front of the panel.

3,3	Fire alarm
4,4	Fire alarm

Bypass the above terminals using the input disable switch "2".

5,5	Auxiliary interlock

Bypass the above terminals using the input disable switch "3". A delay can be set on the auxiliary interlock by using the poet marked "aux time" from 0—100 seconds.

6,6	Thermal link

Bypass the above terminals using the input disable switch "4".

7,7 not used, do not connect

8,8 spare function interlock (second LED on fascia)

Bypass the above terminals using the inputs disable switch "5" use terminals 9,9 to indicate a fault on this interlock. 8,8 closed will indicate a healthy interlock (green). 8,8 closed will indicate a trip (red) and isolate the gas and 9,9 closed will indicate a fault (amber)

10,10	Gas pressure switch

Bypass the above terminals using the input disable switch"6"
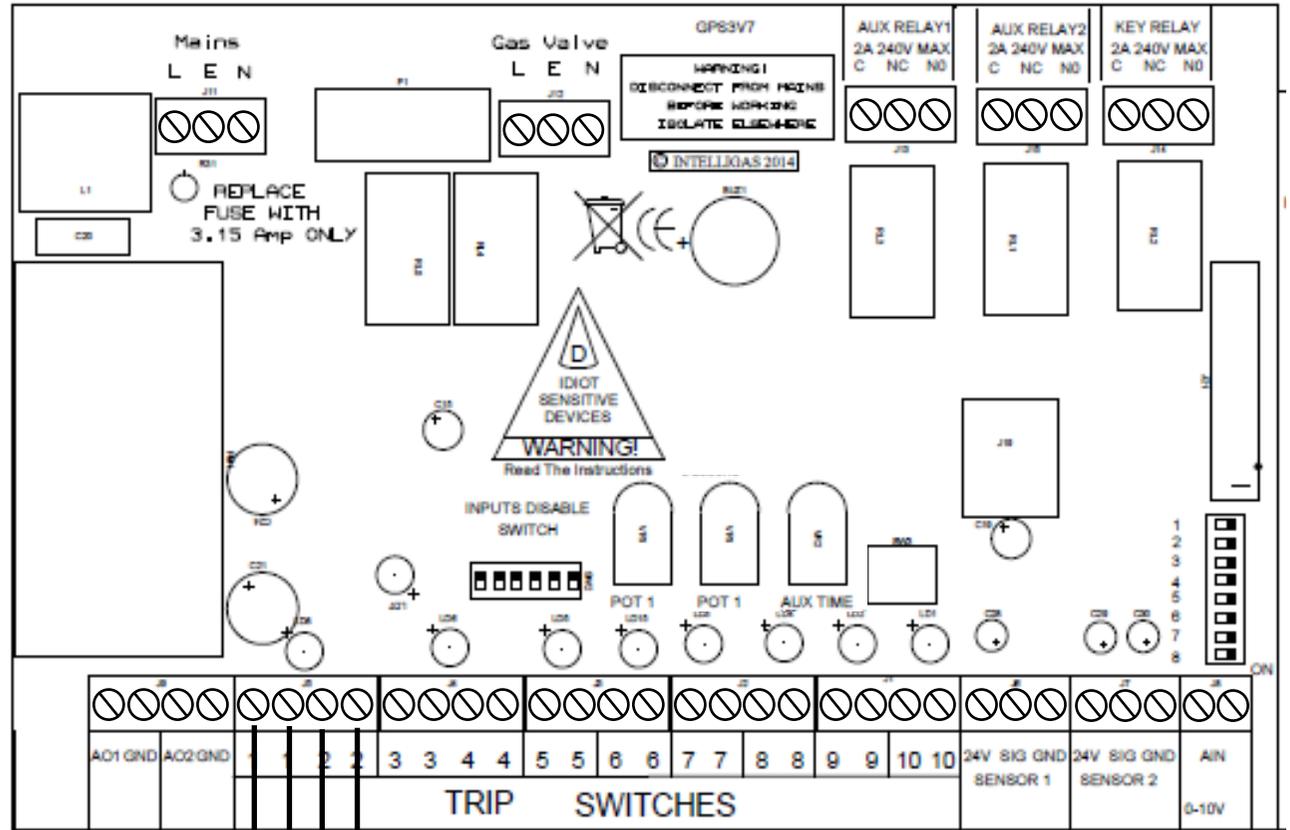
If an interlock is to be used then first, ensure the interlock disable switch is in the correct position. Up means the interlock is disabled, down means the interlock is active.

Both the estops and fire alarm are 2 channel interlocks. If only 1 channel is being used then connect as shown above

E stop switch